ENGLISH GOTHIC CHURCHES

THE STORY OF THEIR ARCHITECTURE

CHARLES W. BUDDEN

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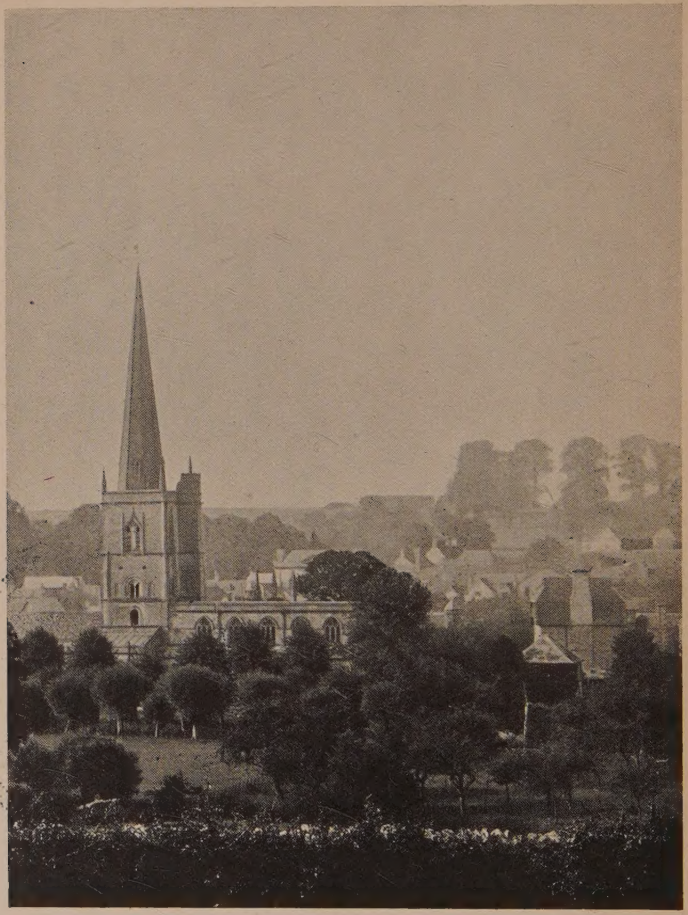

BURFORD CHURCH AND ITS SURROUNDINGS,
OXFORDSHIRE.

ENGLISH GOTHIC CHURCHES

THE STORY OF THEIR ARCHITECTURE

BY

CHARLES W. BUDDEN, M.A., M.D.

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PREFACE

THE opening up of the country through increased road transport is one of the features in our modern national development. Remote villages that before were inaccessible to the majority of people are now visited with ease and comfort, and a new field of architectural interest is revealed in our wealth of old parish and collegiate churches, cathedrals and abbeys.

To assist the tourist in his rambles round these relics of bygone England, this little volume is written. Its aim is to direct him to the choicest examples, and to translate for him some of the language of the mason and carpenter.

Most books on church architecture present the standard sequence of styles from Saxon to Perpendicular Gothic, and devote a chapter or so to each architectural period. But one who visits an old church is not confronted as a rule with a building which presents an architectural unity. On the contrary the fabric is more likely to exhibit three or four styles : a Norman doorway, an Early English buttress, a Geometric window, a Perpendicular arcade. In such case, if one has not a knowledge of these styles, he must study the whole volume before he is able to say to which of them a particular feature belongs. This offers a grave difficulty. It has been my purpose, therefore, to write a book which the

student may carry in his pocket and to which he may refer when he is visiting any old church, and I have arranged the chapters that they might serve as a ready guide to the discovery of the actual period to which any part of an old building may belong. At the same time I have tried to show the purpose underlying architectural forms, and to trace their development through the ages. Whether I have succeeded or not in this aim is for the reader to decide.

For additions to the author's set of photographs which, with the drawings, have been especially made for this book, acknowledgment is due to :—

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May 1927.

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CHAPTER I

INTRODUCTION

IT has been said that a building makes its chief appeal by arousing in the mind certain trains of meditation. In other words, the delight one takes in architecture rests no less upon its form than upon the message it has brought to us from the past. It is, indeed, the most reflective of the arts. An old building is like a book which may be the work of a single author, or a symposium to which several have contributed. Buildings, too, like books, may be the product of a single generation, or their story may have extended over centuries. If the former, they are of peculiar interest in their unity : if the latter, they are no less interesting because of their diversity. In both cases the story they unfold is one of human endeavour, of human aspiration, and of human achievement.

It is safe to say that no country in the world can vie with England in its wealth of parochial buildings. Our land contains many thousands of ancient churches which are to be seen in town and village from Land's End to the Tweed. But of these only a relatively small proportion exhibit unity of design. Most of them are the gradual evolution of the ages, and present that irregularity which is both picturesque to look upon, and fascinating to study. Almost every church offers an historical problem which can only be solved by a careful analysis of its varied architectural features. There is, therefore, as in music, an intellectual as well as an æsthetic pleasure to be derived from architecture. Architecture has, in fact, been called " frozen music ", for the two

arts are parallel in this respect, that each takes a theme and elaborates it. When listening to music the trained ear recognises the thematic material in all its varied forms, and the structure of a piece is made evident to one who has a memory for sound. If there is no such memory the musical subjects are not recognised when they are repeated, nor can one hear in the variations any semblance to the original theme. Similarly in architecture a keen eye and an accurate observation, together with a memory for form, are required, so that when a contour or design is repeated it can be identified even though it has passed through certain changes.

The varying styles of English Gothic church architecture have become familiar under the names of Early English, Decorated, and Perpendicular, which were bequeathed to us by Rickman ; or the sequence Lancet, Geometric, Curvilinear, and Rectilinear, as classified by Edmund Sharpe ; and the dates assigned to these styles are to be found in almost every book dealing with mediæval churches. The terms invented by these two architects are too comprehensive and convenient to be ignored, and it is safe to predict that they have come to stay. But the actual years to which the stages of these two classifications have been related are now discredited. It does, indeed, seem ridiculous to suppose that an architectural style was altered by the death of one king and the accession of another, though in those days Royalty was sometimes the patron of the arts. Equally is it absurd to speak as though there was a definite line of demarcation between two modes of architectural expression. It is common knowledge that for many years the Norman and Early English styles were intermingled, this period being spoken of as the Transitional ; while the change from Early English to Decorated was the natural development of a rapidly-growing plant.

Despite the impossibility of finding years, or even decades, of decisive change from one style of building to another, the

necessity of some classification is so urgent that it cannot be ignored. Two courses are open. One is to date a style from its first known appearance in the country. Such a course is attended by obvious risks, and would certainly be challenged by differing schools of archæologists. The second, and the more satisfactory method, is to take a wide view of architectural movements, and assign periods when such movements had their principal vogue. Prof. W. R. Lethaby[1] advocates a simple classification by centuries :

Eleventh century . .	Saxon
Twelfth century. . .	Norman
Thirteenth century . .	Early English
Fourteenth century . .	Decorated
Fifteenth century . .	Perpendicular
Sixteenth century . .	Tudor

He points out that in each of these periods the style peculiar to each century had its most intensive development in the first half of the century, and exhibited transitional characteristics in the second half. His grouping then forms what he terms a " Zodiac of English Architecture ".

I	Saxon . . .	1000-1050
II	Early Norman . .	1050-1100
III	Mature Norman .	1100-1150
IV	Transition . .	1150-1200
V	Lancet . . .	1200-1250
VI	Geometrical . .	1250-1300
VII	Curvilinear . .	1300-1350
VIII	Late Decorated . .	1350-1400
IX	Mature Perpendicular	1400-1450
X	Rectilinear . .	1450-1500
XI	Tudor . . .	1500-1550
XII	Elizabethan . .	1550-1600
XIII	Renaissance . .	1600-1650

[1] *'Architecture.'* W. R. LETHABY, p. 218 (Home University Library).

There are some objections to this system which the author himself fully acknowledges, but it affords a good working basis. The chief difficulty lies, perhaps, in the fact that certain styles, notably Lancet, Geometrical, and Curvilinear, are applicable almost solely to windows. Another difficulty is that certain districts in England developed local expressions and exhibited a style for periods peculiar to themselves. For instance, the Decorated form of window tracery lingered in East Anglia after it had been abandoned elsewhere.

It may assist the understanding of architectural development if we assign the main changes to definite historical periods marked by great national happenings. We may begin with Norman. It is correct to affirm that this style was chiefly developed after the Conquest. It did not arrive, of course, in the year 1066, for it had already exerted its influence in England during the reign of Edward the Confessor. There had always been communication between England and the Continent, and, naturally, architectural ideas were received together with other influences in art and learning. It is reasonable, therefore, to speak of Norman architecture in England as dating from the Conquest. But when did it give place to the Gothic style? Rickman places the change in the year 1189, when Richard I came to the throne; Sharpe suggests one year later. But England was at that time still under strong Norman influence, and the student of history will search in vain for any reason for such a change in 1189-90.

In the year 1215, however, there did occur a most important event in English history: the signing of Magna Charta, by which the British people received substantial liberties. With the birth of a new English spirit, there might reasonably be expected to develop a new architectural expression. But the emancipation, though signed at a specified time, was itself an evolutionary process, and the events at Runnymede were but the dramatic announcement

of victory after a war which had raged for years. So, pointed architecture had appeared in England long before 1215, for it had been used in arcades where an arch less rigid than a semicircle was needed to permit a freer construction. Nevertheless, if the dates of the great monastic buildings be consulted, the student will be struck with the intensive vogue of the Early English mode of architecture between the years 1200 and 1225, and he will be inclined to see in the political world evidence of those developments in national life which architecture, as the most reflective of the arts, also mirrored. [1]

The next epoch-making event was the Black Death. The results of this calamity were far-reaching, and have not been sufficiently appreciated. We have in the Black Death an example of the teaching of history that a social crisis precipitates the gradual march of events and converts evolution into revolution. Destroying a large proportion of the population, it brought about a complete transformation of the whole social system of the country, producing a condition of affairs very similar to that we have observed since the Great War. They were inevitable changes long foreshadowed but accelerated by the great upheaval. Then, as now, wealth changed hands, and there grew up a 'new rich.' Decimation of the aristocracy made way for the wider energies and rapidly rising classes of tradesmen. The end of the manorial system was hastened. Chivalry, already on the decline, sank swiftly. The voice of labour asserted itself. The burgess grew in power. Everywhere was seen a revolt against the whole system of inequality which till then had passed unquestioned as the Divine order of the world. The monastic orders, and in particular the mendicants, began to grow tepid, both in piety and learning. The people's hearts had been growing cold towards the monks prior to the great pestilence.

[1] The general mental unrest and the tendency to revolt against existing authority was also made evident in the quarrel with Rome at this time.

Their greed of wealth and the bad management of many of the monastic establishments had alienated public sympathy, and when the monasteries were depleted by death, and were obliged to accept a lower grade of novice, they lost still further their prestige. Money, previously poured into their coffers, became diverted into other channels, and, for the most part, great monastic building became a thing of the past. The whole conception of religious architecture was transformed. It became parochial, and the new builders seized upon the Perpendicular style exhibited by Gloucester Cathedral, and made it their own. Henceforth it swept the country, and though the earlier modes lingered here and there for a few years, it may be said that for all practical purposes Perpendicular Gothic in parish churches dates from the time of the Black Death.

It has been the custom to regard Perpendicular Gothic as a declining and even degenerate phase in architecture, an opinion strongly expressed by Ruskin. But modern feeling is turning in favour of this style and recognises that, in its highest form, not only did it lose none of the glory of the Gothic spirit, but even reached its finest climax. It is to this period that we owe fan-vaulting, the hammer-beam roof, the glorious screen work of East Anglia and South West England, and the magnificent towers of Somerset.

On the other hand it must be conceded that it was in the Perpendicular period that the world witnessed the decline and fall of the Gothic tradition. The fatal stroke, when it came, was swift. Just as the Black Death sounded the knell of that exuberant extravagance which characterised the close of the first Gothic style in England, so the coming of the Renaissance, combined with the political circumstances, brought about the collapse of the Perpendicular phase. The Confiscation of the Chantry Endowments was the final stroke. Church building stopped then as suddenly and dramatically as though occasioned by a strike, and when, a hundred years

EARLY ENGLISH CHURCHES.

1. EXTERIOR: WARMINGTON (NORTHANTS).

2. INTERIOR: LONG STANTON (CAMBS.)

CURVILINEAR DECORATED CHURCHES.

1. EXTERIOR: CRICK (NORTHANTS.)

2. INTERIOR: SELBY CHOIR (YORKS.)

later, it was resumed, it was in a totally new style and animated by a new spirit.

Summarizing our conclusions, we may recognise three great architectural periods as follows :—

Norman.—From the Conquest to Magna Charta.

First English Gothic (*Early English and Decorated*).—From Magna Charta to the Black Death.

Late English Gothic (*Perpendicular*).—From the Black Death to the Confiscation of the Chantry Endowments.

It is with these three main divisions only that this small volume is concerned.

These periods are illustrated by general views of Churches as follows :—

I. NORMAN:

Exterior :

Fig. 3—Old Shoreham Church. Sussex.
Pl. IIa—Swyncombe, Oxon.

Interior :

Pl. XXIII—Thorney Abbey, Lincs.
Pl. XXXII—Durham Cathedral Crypt.

II. FIRST ENGLISH GOTHIC:

(*a*) EARLY ENGLISH:

Exterior :

Pl. I—Warmington, Northants.

Interior :

Pl. I—Long Stanton, Cambs.

(*b*) DECORATED:

Exterior :

Pl. II—Crick, Northants.
Pl. VI—Patrington Yorks.

Interior :

Pl. II—Selby Choir Yorks.

III. LATE ENGLISH GOTHIC or PERPENDICULAR:

Exteriors :

Fig. 53—St. Just, Cornwall.
Pl. V—Loddon, Norfolk.
Pl. XX—Lavenham, Suffolk, and Bedingham, Norfolk.
Pl. XXXVI—Cullompton, Devon.
Pl. XXXVII—North Petherton, Somerset.

Interiors :

Fig. 40—Wigenhall St. Mary Magdalen Norfolk.
Pl. XXX—Lavenham, Suffolk.
Pl. XXXVI—Cullompton, Devon, South Chapel.
Pl. XL—Ashton, Devon.

IV. VARIOUS PERIODS:

Frontispiece—Burford, Oxon.
Pl. XXXV—Packingham, Suffolk.
Fig. 51—Frampton, Lincs.

CHAPTER II

THE PLANNING OF THE GREATER CHURCHES

TO-DAY practically all the ancient churches in England belong to one of two classes ; they are either of cathedral rank or they are parochial. But this was not always so. A great number of churches in England that are now parochial were originally planned for monks and canons. Thus Tewkesbury was a Benedictine Abbey ; Leominster a Priory of the same Order ; Cartmel was an Augustinian Priory ; St. Mary's, Scarborough, was a Priory of the Cistercians ; while St. Sepulchre's, Northampton, is one of the few surviving churches associated with the ancient Military Orders. The planning of these churches and of many others is as different from that of a parish church as these churches are different one from another.

On the other hand, the formation of new dioceses has led in some instances to the conversion of old parish churches into cathedrals. This has happened recently at Bury St. Edmunds, where St. James' has been elevated to cathedral rank, and at Newcastle, where St. Nicholas' is now the cathedral church, also at Bradford, Blackburn, Sheffield, Chelmsford and Coventry. But these adaptations, temporary or permanent, do not and cannot change the original conception of the buildings any more than the use of a secular hall for Sunday services converts such a building into a church. It may become a church in a religious or a social sense, but not in an architectural sense. These new cathedrals may be diverted from their original purpose, but they remain parochial in conception and spirit.

We must also note the distinction between collegiate and parish churches. This distinction is confused because parish churches, especially in the XIVth, XVth and XVIth centuries, were often made collegiate. What has been said, therefore, about the new cathedrals applies equally to these collegiate conversions. But many churches were founded or built as collegiate. Instances occur at Fotheringay, Northamptonshire ; at Crediton and at Ottery St. Mary's, in Devon ; at Rotherham, Yorkshire ; and at many other places. These churches differ materially from parish

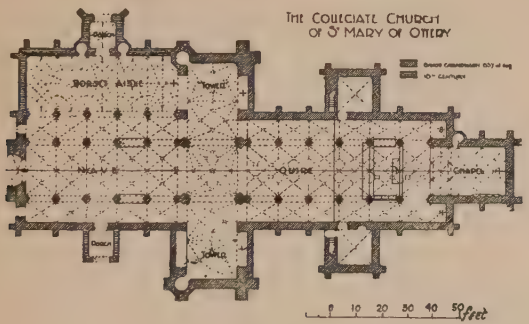


FIG. 1. OTTERY ST. MARY.

churches both in plan and design. Contrast, for example, the planning of Ottery St. Mary (Fig. 1) with that of an ordinary parish church (Figs. 4-9). These collegiate churches were designed for services quite different from those of the parish, and the planning of such churches was as unnecessary for parochial use as would have been the planning of a cathedral. To-day, with the exception of Manchester, every one of these collegiate churches is parochial.

Without entering into any detail of the different kinds of church in Mediæval England, it will be useful to indicate the main classes into which the greater churches may be grouped.

(a) *Abbey Churches*

Abbeys were establishments staffed by monks or canons regular, who lived a cloistered life with an abbot as their head. There were numerous Orders, such as Benedictine, Carthusian, Cistercian, Cluniac, and others, and their abbeys differed slightly in plan one from another. In this country those of the Benedictines and Cistercians are the noblest and most numerous.

(b) *Priory Churches*

A prior was the second in command to the abbot, and a priory may be described as a daughter monastery to an abbey. The architecture of a priory church, therefore, is sometimes less elaborate than that of an abbey church.

(c) *Cathedral Churches*

The cathedral is the seat of a bishop. It is his episcopal *cathedra*, or throne, and the cathedral is the mother church of the diocese. A church occupying a position of such distinction would naturally grow in size and splendour as the people bestowed upon it their legacies and gifts.

The foundation of cathedrals on the Continent was secular, and the clergy attached thereto were not under monastic discipline. In England the cathedral churches were often associated with monastic establishments, and various attempts were made from time to time to enforce the Benedictine rule upon cathedral canons. There does not seem to have been any absolute regularity in the matter, and the term *Minster* was apparently used to denote both cathedral and monastic churches.

(d) *Collegiate Churches*

These were secular, not monastic, and were served usually by a dean and chapter in the manner of a cathedral, but they were not the seat of bishoprics. The majority of them are

of XIVth and XVth century foundation, the movement coming into popularity with the decline of the monastic prestige after the Black Death. The object of the foundation was to secure a continual worship or "perpetual adoration," after the manner of the constant round of services which was the rule in the monastic and cathedral churches.

The general conception and plan of all these greater churches may be conveniently considered under one grouping. It is true there were certain differences in their individual planning, but these cannot be adequately explained in a small volume. It must be sufficient to describe the leading principles of construction as exhibited in the plan. (Fig. 2).

The High Altar was always given the position of honour, and that part of the church which it was to occupy was built first. A monastic establishment could not exist without its Presbytery and Choir. Nave, transepts, towers, and all other parts could be added as funds accumulated. These great churches, therefore, grew slowly ; centuries, perhaps, intervening between the first building and the completion of the whole, if, indeed, it could be said that finality was ever reached. We must, therefore, visualize these churches as slowly extending from the choir and sanctuary, while the original part might be enlarged, modified, or rebuilt to suit the new demands of an elaborated ritual. There is, in fact, no example of a great church, built since the Conquest, which has remained unaltered even at its eastern end.

The High Altar was not placed directly against the East wall of the Presbytery, as is customary in a parish church, but away from it, so that a processional path surrounded it. This was done that it might be aspersed with holy water from every side in accordance with the Rubric. There was a second altar placed between the High Altar and the stalls, which was used for certain of the Offices, and this necessitated an additional bay in the length of the Presbytery. The

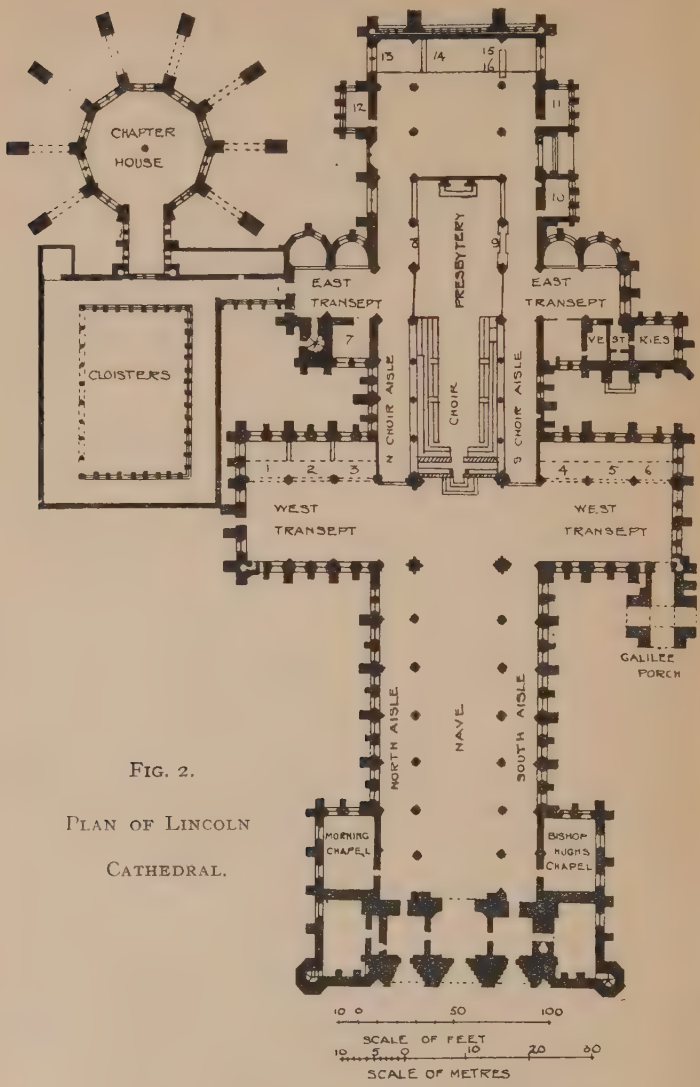


FIG. 2.

PLAN OF LINCOLN CATHEDRAL.

normal length of the Presbytery came at last to be four bays : an eastern bay for the High Altar, a second bay for the servers, a third for this additional altar, and a fourth for the doorways by which the monks usually entered and left the choir.

The choir was occupied during the services by the monks and canons. The number of these varied, and therefore the size of the choir was variable. In the Benedictine church of Westminster Abbey there were 45-50 monks ; in Peterborough the number once rose to 110 ; in Canterbury Cathedral the choir is six bays long. In some monasteries the choir occupied the crossing under the central tower. In any case the choir was demarcated from the nave, or western limb of the church, by the pulpitum. In monastic churches the nave might be allocated to the use of parishioners, though in Cistercian and Carthusian monasteries the laity were excluded altogether, unless, perhaps, on special occasions.

In the transepts were placed minor altars. In the primitive Christian church there was but one altar. St. Ignatius, writing in the first century, is quite clear on this point ; and in the fifth century St. Augustine asks with apparent surprise and scorn what a section of the church is doing with two altars in one building. It was in this century the practice came into vogue of having several altars in a church, usually three ; but as time went on these grew to an extraordinary number in some churches. This increase was the logical outcome of the belief in saintly intercession and the obligation upon every priest to say Mass once a day before noon. For in a monastery where there might be fifty ordained men this would be an impossible task, in addition to the routine of the monastic services and duties, if there were only a few altars. The transepts were lined with altars, and because two transepts might be insufficient to accommodate them all, other transepts were sometimes added, perhaps two on the Eastern side of the crossing or two on the Western side. In

Lincoln, Ely, Worcester, and Salisbury Cathedrals, there are four.

We may assume that the majority of the altars in these transepts were for the use of the monks and canons. But in certain of the greater churches the laity were allowed to have altars for which special chapels were built. These were for posthumous masses and were called chantry chapels. In some of the greater churches chantries were very numerous. In Lichfield Cathedral there are said to have been eighty-seven, and an immense body of priests were required to minister at these altars, their services, of course, being wholly distinct from those of the principal establishment. In the planning of these additional chapels, therefore, provision had to be made for the monastic routine to be carried on without interruption from subsidiary services. Usually the tomb of the founder of the Chantry rested in the private chapel. It must not be supposed, however, that every Chantry endowment involved the building of a chapel, or the endowment of a special altar. In many cases the arrangement was made for the Masses of Requiem to be said at an existing altar.

A special feature of the greater churches is the Lady Chapel, built usually at the East end of the church, behind the High Altar. It was in the thirteenth century that particular homage was paid to the Blessed Virgin, and the custom became prevalent of erecting chapels in Her honour. It sometimes happened that the Minster church itself was dedicated to Her, in which case the High Altar was Her altar, and a Lady Chapel was unnecessary. To-day the term Lady Chapel is used loosely, and may indicate any chapel devoted to subsidiary services and dedicated to some other saint.

In some cases these chapels were very large and imposing, and had a material effect upon the planning. They were not restricted to Lady Chapels. In Westminster Abbey there is a special chapel for the Confessor ; in Canterbury

Cathedral, for St. Thomas; in Lincoln, for St. Hugh. The Cistercian Abbey of Beaulieu, in the New Forest, had an apsidal east end from which there projected no less than ten radiating chapels. Norwich Cathedral exhibits a similar arrangement.

Whenever possible, the monastic establishments sought to secure some relic which would attract pilgrims and be a source of honour and revenue. The reputation of the saint in such a case influenced the position of the shrine, and to some extent controlled the plan of the church in which the shrine was erected.

Relics, as is well known, were visited by countless multitudes of people, and for these accommodation was required, and also passage way along which the pilgrims could walk without entering the Sanctuary and choir, or interfering with the services of the monks and canons. It is on record that loss of life sometimes occurred owing to the concourse of people struggling to view some relic in a church which was not planned for its exhibition. Many of the aisles, ambulatories and doorways which complicate so much the plan of a greater church were built for the purpose of dealing with the pilgrim crowds.

The church had also to be planned for processional ceremony, which was an important feature of English church life. In the greater churches these processions were both long, numerous and ornate, so that it has been said that the possession of a perfected procession-path is the mark of marks which distinguished a church of the first rank from one of the second. Especially was such a route needed on the great days when the relics of some saint were carried, for both doorways and ambulatories had to be high and wide enough to enable the shrine with its canopy to pass.

The greater churches were further planned with cloisters placed nearly always to the north or south of the nave. The existence of a cloister does not imply that the building was

monastic. Even the secular canons, who had their own houses in the cathedral or collegiate close, liked to have their cloistered walks.

Lastly, when we consider that the great mediæval church required vestries and robing-rooms, a chamber where the Chapter might meet for its grave deliberations, porches for the aggrandisement of the entrance, passage-ways between the monastic or collegiate buildings and the church communicating with the several parts of it, chambers for bell-ringers, and a feretory for some special relic, we can understand the complexity of the plan and realise that, as in the case of Lincoln, the roof of monastery and church might cover as much as two acres of ground.

CHAPTER III

THE GENERAL CONCEPTION AND GROWTH OF A PARISH CHURCH

THE planning and general conception of a parish church in England has been essentially English and even local. Unlike the greater churches, the parish churches borrowed little from the Continent, but developed along traditionsl lines and in their own particular way. Naturally they would seek to incorporate features exhibited by the greater churches, but their purpose and function were so different that much similarity could not be expected.

There was, however, one feature in common. The parish church, like the greater churches, placed its first emphasis upon the altar. If we were asked to-day why a church was built, the probable answer would be to accommodate worshippers, and if a church is too small to hold the congregation that desires to worship within its walls, it is enlarged or rebuilt. That was not the reason for church building and extension in mediæval days. The church was an Altar House, and in its simplest form a covering for the altar. When the practice arose of having many altars in a church, churches were enlarged in order to accommodate them ; and as processional ritual developed with the multiplication of altars, and an increased significance became attached to the Mass, aisles became necessary, not only to afford space for altars and chapels, but also to provide processional paths. Churches were not seated in pre-Reformation times, and congregational worship after the manner of to-day had not developed. The practice of coming punctu-

ally to church at a stated hour and remaining until the close of the service is a comparatively recent custom. In olden days the congregation was a moving one, people dropping in at all times, staying a short while and then going out, as they do to-day in the Greek churches. No one sat down to listen to a sermon, though short homilies would be delivered on certain occasions. The whole religious life of the people

J. H. Nibbs, *del.*

FIG. 3. OLD SHOREHAM CHURCH, SUSSEX (NORMAN).

was focussed upon the altar, and this fact influenced the whole plan and conception of the building.

We have noted that this plan was definitely English. The Norman invasion naturally brought with it continental ideas, and it is only to be expected that foreign influence would be exerted. But we never assimilated the Norman style and made it our own. On the contrary, from the very first it

was treated as a foreign aggression, and though a few churches here and there were planned on continental lines, for the most part the indigenous Saxon element made itself felt.

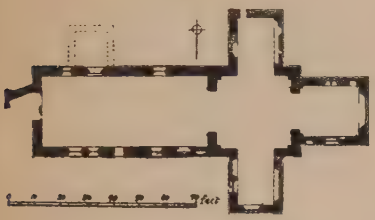


FIG. 4. PLAN OF CHURCH ON THE CASTLE HILL, DOVER.

The Norman plan was cruciform with a central tower as at Old Shoreham, Sussex (Fig. 3), but cross churches were known in England long before the Conquest as, for example, the ancient church of St. Mary on the Castle Hill, Dover (Fig. 4), and this plan continued in England centuries after the introduction of pointed architecture (Fig. 5). The reason why so few old churches exhibit this perfect cross plan to-day is because of the numerous alterations and re-buildings that were effected in later times. In the fifteenth century many cruciform churches were converted into parallelograms by the building of aisles which absorbed the transepts.

FIG. 5. POYNINGS, SUSSEX.

In some cases the Normans built central towers without transepts. An example is shown in the photograph of Cassington church (Plate II a). In such case the interior

was divided into three parts : the eastern limb constituted the sanctuary, the choir was below the tower, and the nave occupied the western limb (Fig. 6). A similar plan is exhibited in two other Oxfordshire churches, Iffley and Bucknell, as well as in churches of other counties.

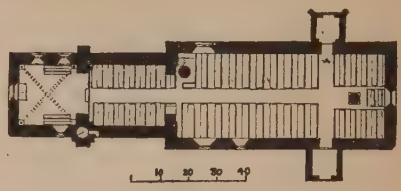


Fig. 6.
Ground Plan of Cassington Church.

A third Norman plan is exemplified in Swyncombe (Plate IIa) and Little Braxted (Fig. 7), where the eastern ends are apsidal. Apses are exceptional in parish churches, probably because they were difficult to build. Their distribution is very irregular ; many must have perished and been replaced with rectangular structures.

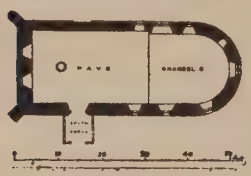


Fig. 7. Ground Plan Little Braxted Church, Essex.

It must not be supposeed that because the examples so far cited have been aisle-less churches that the Norman parish churches were built without aisles. Some of the larger parish churches followed the Minster type, as in the case of Melbourne, in Derbyshire. An illustration of a fine Norman arcade is given in Plate XXII. Examples also occur at Walsoken (Norfolk), Hemel Hempstead (Herts.), Steyning (Sussex), Whaplode (Lincs.), and many other places.

But the minster type of church was unsuited to parochial usages. The parishioners did not want central towers. (Plate XXXV). In the first place they were structurally weak and presented grave engineering difficulties. Many, in fact, fell. Secondly, a central tower interrupted the view

of the High Altar, so that those in the nave could not easily see the Elevation of the Host. An attempt was sometimes made to overcome this difficulty by piercing apertures through the piers of the tower so that a view could be obtained, but it must be admitted that our knowledge of the use of these squints, or hagioscopes as they are called, is very meagre.

It is not surprising that the Saxon custom of placing a tower at the west end became the general rule. Plates V, XX, and XXXVI. In that position it gave stability to the fabric and balance to the composition, while its presence

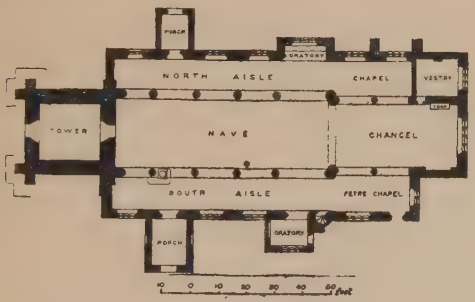


FIG. 8. GROUND PLAN OF WRITTLE CHURCH, ESSEX.

offered none of the drawbacks attendant upon the central tower. Moreover, as an immense number of western towers were added to earlier buildings, in some cases replacing a central tower which had fallen or gave evidence of weakening, the new work could be carried on without interrupting the round of services.

With the advent of the pointed style, that is, from the XIIIth century, the common church plan was that foreshadowed by the Saxon builders, namely, a chancel with rectangular east end, a nave and a western tower (Plates V, XX, XXXVI, and Figs. 8 and 9). The entrances

were placed variously. Some churches were built in the Saxon mode, with the entrance through the tower, but, for the most part, a doorway was favoured on the south side, though often there were both north and south doorways, each covered by a porch. As church extension became necessary, aisles were added, and these might be extended along the chancel to the east end of the church, so forming a perfect parallelogram, or perhaps leaving one bay so that the High Altar might be adequately lighted (Fig. 8). In some cases outer aisles were added for

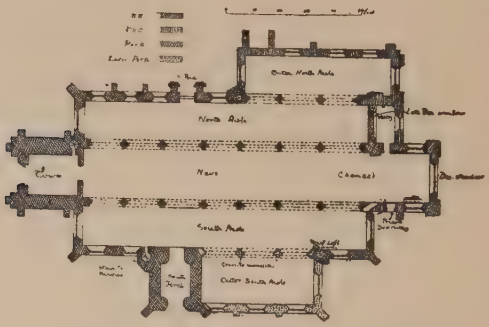


FIG. 9. PLYMPTON ST. MARY, DEVON.

the purpose of providing chantry chapels, as at Plympton St. Mary (Fig. 9). Particularly was this done in the years after the Black Death.

It cannot be too strongly emphasised that the Black Death was the decisive line in the history of the Gothic tradition in England. Prior to the Black Death, ecclesiastical architecture found chief expression in the building of the greater churches. After the Black Death, it became parochial. This was the natural sequel to the decline of the monastic dominance and the emancipation of the burgess. During the two hundred years that elapsed between the Black

Death and the Confiscation of the Chantry Endowments hardly a church remained untouched, while over 1,100 were practically rebuilt from the ground. In East Anglia, alone, some 454 churches were erected, in Devonshire and Cornwall over 200; in Somerset and Gloucestershire at least 100. Some parts of the country, such as Sussex, remained comparatively unaffected, nevertheless a wave of church building passed over England during these two centuries such as has never been experienced either before or since. It might be said that this late Gothic period was an age of iconoclasm. Saxon, Norman, and Early English work were swept away and replaced by later styles. Few Perpendicular churches stand on new foundations or sites, and not many survive to-day that do not show, somewhere about the fabric, traces of an older building. But if these xvth century craftsmen destroyed much of what would be of intense archæological interest, it must be conceded that, for the most part, their work was an architectural advance, and that they converted what must have been but crude constructions into buildings of considerable beauty. And this to, to, must be conceded; they took no pains to obliterate the marks of alteration, so that we are enabled to-day the more easily to identify their work,

They retained what was best of the old. Even when a previous church was razed to the ground and a new one substituted, it would appear that the builders often used again fragments which they thought worthy of, or convenient for, their purpose. Particularly were old doorways retained. It has been suggested that a particular sanctity attached itself to the church entrance, so often was it preserved when all else might be thrown aside. Windows, too, were often left or reinserted. An arcading, a column, or even a single capital was sometimes preserved. Details such as a piscina niche and sedilia, or corbel stones would be used again. The tower arch might be left, or the chancel arch. The latter as a debatable possession, belonging neither to parish or

incumbent, is often the only surviving relic of the original fabric. An additional reason for leaving the chancel arch untouched was that it was customarily, filled in with boarding on which was painted the Doom or Last Judgment, a very favourite mediæval subject which emphasised the importance of the Mass.

Many churches were re-roofed, the western walls showing the marks of the old work. Where a clerestory was added a new roof would be essential. In such cases the outside might be enriched with an embattled parapet. In other churches, again, the nave might be lengthened, or aisles thrown out, the chancel modified, a transept or chapel built, or the tower raised in height. In short, there was no limit to the variety of ways in which churches might be built, enlarged, or modified.

It must not be supposed that the 1,100 or so churches built or rebuilt between the Black Death and the Confiscation of the Chantry Endowments constituted the sum total or even the greater part of the church building. If the work involved in the alteration of several thousand other churches were counted, the figures would be tremendous. Over 2,300 towers were erected during this period. And the work of some of the towers as, for example, those in Somersetshire (Plate XXXVII), is more than equivalent in labour and money to the erection of a fair-sized church.

An immense number of towers were also improved by the addition of one or more stages. This usually followed upon the building of the clerestory since the increased elevation of the nave roof dwarfed the previous tower height. Nothing is more incongruous than the effect produced by a tower which does not rise well above the nave, and mediæval architects were rarely guilty of this want of proportion. It was this same sense of balance that led probably to the abandonment of the spire. I have counted only some 200 stone spires built in the Perpendicular period. In many

parts of England they are almost unknown. The fact is, the spire did not fit in well with the flattened roof of the XVth century, and if the spire has really been the development of the high-pitched roof, this feeling of incongruity is justified. The embattled square tower with its pinnacled coronal, on the other hand, is in perfect harmony with a XVth century nave, and when the latter also has been enriched with a parapet and pinnacles, the unity of the building is very distinctly preserved.

Of the various changes which were effected in old buildings, the most common was the insertion of new windows. There are few old parish churches in England to-day which do not possess some fenestration in the Perpendicular style (Plate XXXV). Most of the old Norman and Early English windows were small and admitted very little light (Plate IIa), and light was needed for the exhibition of the paintings with which the mediæval walls were covered. There is little doubt that in the illiterate days of the Middle Ages the people received much of their religious teaching by means of stories painted or carved upon some portion of the church fabric. The windows, too, were generally filled with pictorial glass, as in St. Mary's Fairford (Glouc.), and in St. Neot's (Cornwall), where are seen many fine specimens of XVth century and early XVIth century work. The greater part of the mediæval glass was destroyed in the iconoclastic days of the Reformation, and later, but it is to be presumed that before that time most church windows were filled with religious pictures.

The wave of church building which passed over England after the Black Death was also the result of the stimulus given to a powerful and subtle dominance, namely the mediæval Doctrine of Purgatory. The way in which the mediæval church used this doctrine is common knowledge and needs no stressing. It was a doctrine which was fully developed long before the Black Death, but by its very

nature it received an immense impetus after this calamity. It has been noted that for the period after the pestilence, mediæval wills are far more plentiful than before it, and they are full of requests for Masses. Cardinal Gasquet remarks that after the Black Death, "a new religious spirit found outward expression in . . . . the singular spread of a more personal devotion to the Blessed Sacrament."[1] The effect of the doctrine is further seen in the endowment of innumerable chantries; in the frequency with which all parts of the church fabric, and all items of its furnishing, are inscribed with appeals for prayers to be said for the souls of the donors; and in the constant reiteration in painted frescoe and glass, and in carvings of wood and stone, of the awful character of the Day of Judgment.

That the belief in the Doctrine of Purgatory was an important factor, if not the primary motive, for church building after the Black Death, is evidenced by the total cessation of that building when the chantry endowments were confiscated. When posthumous masses were forbidden the impetus for church building passed away. In any case the population of the country could not have filled all the churches. T. Hugh Bryant says that in Suffolk there was one church to every fifty inhabitants.[2] In one case there were three churches within a single churchyard.[3] At the time of the Dissolution of the Monasteries there were 650 churches in Norfolk, and 533 in Suffolk.

The planning of Parish churches, like that of the greater churches, was markedly affected by the demand for chantry chapels (Fig. 9). In many cases the whole plan of a church has been transformed. The two great Coventry churches are examples of this. St. Michael's, now the cathedral, has seven chapels, and Holy Trinity, eight. These chapels

[1] 'The Great Pestilence.' Intro. xviii.
[2] 'Churches in Suffolk,' p. 5.
[3] Reepham, Norfolk.

were supported privately or by trade guilds, many of them bearing the donors' names, or the names of the guilds. Most were built in the xvth or early xvith century, though, in some cases, the chantry endowments were older. It is probable, indeed, that more than half of the entire number of chantries in England were founded between the Black Death and the Dissolution of the Monasteries.

These chantry chapels fall into three main groups. (*a*) The first is that already noted : the formation of a chapel by the building of an aisle. There were variants of this plan. Sometimes an aisle would be added to an unaisled building, or an additional aisle might be built on to an existing one (Fig. 9), or an aisle might be extended along the chancel (Fig. 8). In other cases an aisle might be added to a transept. (*b*) A second group of chapels was made by partitioning off a portion of the fabric by means of screens. (*c*) Thirdly, a number of chantry chapels were constructed as separate buildings, though they might be attached to the main fabric. There is an example of this in the Lane Chapel at Cullompton, Devon. In such cases the treatment of the chapel is absolutely distinct from the rest of the church. Thus the roof of the Lane aisle is fan-vaulted (Plate XXXIV), and the windows exhibit different tracery. The same thing is observed in the case of the Wilcote Chapel, Oxon., and many others. The walls of such chapels may be of ashlar, though the rest of the fabric is undressed stone or rubble, while the interiors are lavishly decorated. In other details, too, they are treated as separate buildings.

CHAPTER IV

THE BUILDING OF THE WALLS

THE first step in any building is to lay the foundations. This process varies with the height and weight of the building, and the character of the ground, so that the estimation of these factors becomes sometimes a complex problem. For instance, the famous leaning tower of Pisa has walls which are 13½ feet thick at the base and 9 feet thick in the upper stages, and the estimated pressure of this mass of masonry is 7½ tons to the square foot, on soil theoretically capable of sustaining only 4 tons. Especially is building difficult on marshy ground, or on sand which may move. To overcome these drawbacks, many ingenious ways have been devised. It is said, for example, that the famous Temple at Ephesus was laid upon skins. The lighthouse at Leasowe, on the Cheshire coast, is built upon cotton. In some of the marshland churches along the East coast, the foundations are logs. In others, the buildings rest upon rafts of concrete.

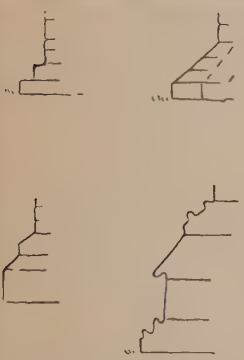
THE BASEMENT COURSE

Upon the foundation stand the walls, but they do not ascend straight from it. Between is a spreading base or foot, called a ground or basement course, which is interposed to give increased stability. A ground course resembles the frame of a picture in that it satisfies the eye. Abrupt transition from ground to wall without any intermediate member gives an unfinished effect. Imagine a room without a skirting-

1. Cassington (Oxon.).
2. Swyncombe (Oxon.). With apsidal end.

1. St. Mary Redcliffe, Bristol, Flying Buttresses.
2. Lavenham. Base of Tower.

board, and one will realise at once the artistic function of a ground course. Yet this feature was very slowly developed. The Norman ground courses are insignificant, and the reason is not very difficult to find, for structurally they were not required. The walls were so thick that a further spread was deemed unnecessary. It was not until the second half of the XIIth century that the Cistercian builders set the example of providing massive basement courses, standing well out from the walls, nor was it until the XIIIth century that ground courses assumed satisfactory proportions.



FIGS. 10, 11, 12, 13.

BASEMENT COURSES.

It is interesting to follow the evolution of base course design. On referring to Fig. 10, which represents an early Norman type, it will be noticed that the drip from the walls must fall directly upon the flat ground course, so that the wet will lodge there and disintegrate the stone-work. To remedy this the course was chamfered (Fig. 11) to allow the rain to run off. But the joints between the masonry were still exposed, and the weathering continued almost as before. The next step, therefore, was to cut the chamfer without a joint (Fig. 12), and this achieved the desired result. But the beauty of mouldings had now come to be appreciated, and plain bevels were not thought sufficiently ornate. Elaboration was attempted, but the same mistake was made as at first, and the early mouldings held water (Fig. 13). This phase corresponded to the water holding base in the case of piers (compare Plate XXVII). The next step, therefore, was to curve the mouldings so that the water drip from the walls might fall clear to the ground.

This led to the vertical ground course, since a spreading base received the drip from the masonry above. By the XIVth century, all these considerations had been met, and there then occurred the enrichment of the basement course which was so pronounced a feature in the XVth century (Plate IIb).

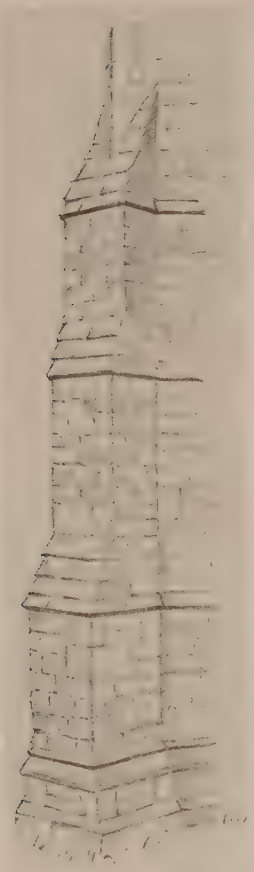
BUILDING MATERIALS

A basement course may be of freestone and the rest of the building of some other material. The Norman walls are mostly a mixture of rubble and mortar cased in dressed stone or ashlar, as may be seen in almost any old castle of that period. In the Southern Counties, especially Hampshire, and South Essex, and in a few of the Western Counties, notably Cheshire, Shropshire, and Herefordshire, wooden churches are met with. No doubt, the majority of the old Saxon churches were of timber, but these have perished. Most timber buildings that survive to-day are XVth century. A few are late XIVth, and some are early XVIth century, but even of these much of the original woodwork has been replaced. Brick is used in Essex. There is in this county an abundance of clay from which the finest bricks can be made. The Romans discovered this fact, and made good use of it, and Essex contains at least 60 churches where Roman brickwork has been found. But the art of brick-making declined when the Romans vacated Britain, and was not resumed until late in the XIVth century, when it is supposed that it was introduced again by Flemish workmen.

But the triumph of building skill in the absence of freestone is found in the churches of East Anglia. The general effect of these churches as seen in their exterior elevation is produced very largely by the use of flint. Flint with stone quoinings and framings constitutes the material out of which the bulk of the East Anglia churches are constructed. In

1. Norman Pilaster Strips.

2. Straight-sided Gablet
Early English Angle Buttresses.



1. Early Decorated Buttress (14th Century).

2. Perpendicular Buttress (15th Century).

a few cases freestone was available as at Methwold (Norfolk), or Barnack stone might be used occasionally, as at Terrington (St. Clement's), and Swaffham, but these are exceptional. The building flints were, in the first instance, gathered from the seashore or from the surface of the fields, and the early round towers so often seen in East Anglia churches were adopted to avoid the labour of quoining (Fig. 14 and Plate XX). The early flint work, too, was crude, but as the art developed, the buildings began to exhibit features of refinement. By the xvth century, the stones were split with great care, the yellowish white coating being removed so as to produce a fairly even surface with a rich black gloss.

BUTTRESSES

The Norman walls were sufficiently thick not to require buttressing, but as an unbroken expanse is monotonous, they inserted pilaster strips (Plate III), which were not only decorative, but served as bonding courses to stiffen the wall. By the end of the xiiith century, these were replaced by buttresses, usually of two stages with their edges chamfered. Often, they were capped by a small straight-sided gablet (Plate III).

In the xivth century the majority of buttresses were built with three offsets, each stage being drawn back to allow the whole mass of masonry to taper upwards (Plate IV). Generally, the buttresses were placed against the wall face in a position where they gave the greatest support, that is, at the points where the roof principals are carried (compare Plate XX with Plate XXX), or, in the case of vaulted churches, where the springing of the vault occurs (Plate XI). But they were also set at the angles of the building, and in the xivth century the prevalent custom was to use one buttress for this purpose, and to set it diagonally. This feature is particularly marked in the East Anglia towers

(Plate V). In the XIIIth century it was usual to set the corner buttresses in pairs one on each wall face (Plate III), but there is no hard and fast rule in the matter, so that in estimating the probable date of a buttress, its general character must be considered as well as its position.

Buttresses with figures are common and are generally met with in work done at the close of the Decorated period.

Late Gothic buttresses are often enriched with the typical arcading of the period, and when this occurs are readily identified (Plate IV). They also have more projection than the earlier examples. But in all cases the first consideration should be paid to the decoration, for it is this feature that dates the workmanship. The mouldings of the base course afford a further clue, while ogee niches, flush-work, and other distinctive features provide their special evidence. But it must be admitted that in many cases it is not possible to date a buttress even within a margin of 200 years.

A buttress is often surmounted by a pinnacle instead of a gablet (Plate IIb and Plate VI). The object of a pinnacle is to weight the buttress and hold it firmly on to the ground, that it may the better resist the thrust of walls and roof. And as the pinnacle occupies a prominent position on the sky line, care was lavished upon its design. Many are exceedingly ornate, being enriched with crockets and finials of every shape. In East Anglia the figures of the four Latin Doctors of the church[1] are often used instead of pinnacles, and sometimes the four Evangelists. At Erpingham in Norfolk, in 1721, one of the four Doctors fell and killed a parishioner, whereupon the other three were removed. In mediæval days inanimate figures, guilty of such offence, might be tried by law. An old rood at Hawarden fell and caused the death of a petitioner who

[1] Sts. Ambrose, Augustine, Gregory and Jerome.

LODDON (NORFOLK). A PERPENDICULAR CHURCH WITH EMBATTLED CLERESTORY

PATRINGTON (YORKSHIRE). A FINE DECORATED CHURCH.

(J. Johnson del.)

was praying in the church. The image was then publicly accused and tried both for murder and failure to answer the prayers of the people.[1]

Flying buttresses (Plate IIb), are met with in the greater churches, but are rare in churches that were purely parochial. This form of buttress is a prop, and is based on the same principle as the prop that a farmer places against his hay-stack to prevent its falling over. The main purpose of the flying buttress is to support the clerestory walls which, in the case of vaulted churches, have a big strain to bear. Its value appears to be doubtful. Francis Bond at any rate, has hardly a good word for it. "Externally," he says, "it is simply so much scaffolding . . . . it is ruinous to the general run of the lines of the building."[2] It certainly is a fact that in England the builders never took kindly to the external flying buttress.

THE PROTECTION OF THE WALLS FROM RAIN

We shall see, in the chapters on windows and doorways, that it was customary to protect these structures from the dripping of rain as it trickled down the walls, by means of dripstones or hood-moulds. These dripstones, true to the great principle of architecture, arose from a constructional necessity, and then became a decorative feature. In Norman and Early English days the dripstone followed the outline of the arch whether of window or doorway (Plate X), but in the XIVth century, when the ogee arch became popular, this rule was not always observed. In the late XVth and early XVIth centuries, doorways were usually set beneath a rectangular dripstone, the spandrels being filled with characteristic ornament, a Tudor rose, a shield (Fig. 19), or the figure of an angel. The stops or terminations of

[1] 'T'wixt Mersey and Dee,' Hilda Gamlin.
[2] 'English Church Architecture.'

the dripstone were also enriched, sometimes being carved as a head and face, which might be the portrait of some local or national celebrity; at other times a geometrical ornament was used, or a spray of foliage, or perhaps the dripstone was finished off by a simple turn.

The custom arose in early times of linking the dripstones together, and this led to the continuing of the line along the side of the building as a string course. These strings are useful for breaking the monotony of a bare expanse of wall, and they emphasise the lines of a building (Plate V), just as the lines of a ship are accentuated by painted bands. String courses also demarcate the stories of a tower, dividing it into its various stages, and where they are omitted, the effect is bleak and severe (Plate VII).

What has been said about the formation of the ground course applies in principle to dripstones. It is undesirable, for example, that the upper surface should afford lodgement for snow, rain, or dust. Nor should it be flat-topped or the wall above will be bespattered when rain falls. It needs to be undercut so as to facilitate the drip of water, and yet not sufficiently undercut to be fragile. Indeed, similar conditions dictate the form of the coping of parapets, of string courses, of window and doorway dripstones, of the set-offs of buttresses and of basement courses, so that all tend to be constructed with the same profiles.

But rain falls upon walls indirectly from the roof of a building as well as directly from the sky, so that to minimise the drip it is necessary either for the roof to project sufficiently or else be provided with means by which the rain water can be carried safely to the ground.

The early plan was to build the roof rafters with a wide overhang called 'dripping eaves' (Fig. 14), a device seen in its simplest form in a thatched roof. To support the projection, the upper courses of the walls were built with blocks of stone called corbels which jutted out (Plate XIV), a

row of these forming a corbel table. It was not a satisfactory plan, and it was replaced about the XIIth century by a system of gutters, gargoyles, and parapets, though the corbelling was retained as a decorative feature.

Gargoyles are water-spouts which carry the rain from the gutters to the ground. The commonest form of these ornaments is that of a dragon or demon, for it was an old belief that these monsters infested churches. The idea to use them as water-spouts was that they might be made to protect the very building they wished to destroy. The word 'gargoyle' is the same as 'gargle,' both forms being derived from the French 'gargouille,' which was the name of a dragon believed to inhabit the Seine at Rouen, and to be the cause of the floods there.

Then there arose the practice of elevating the walls above the roof gutters to form a parapet, a feature which received very special treatment in later Gothic work. At first the battlement was used almost entirely (Plate V). This was reminiscent of military architecture and doubtless served some practical defensive purpose in early days, especially in districts so troublous that even churches were fortified. That which began as a structural necessity was continued as a decorative feature until, in the XVth century, the most intricate tracery work was expended upon parapets, the Mediæval craftsmen recognising the value of design in a part of the church made prominent by being silhouetted against the sky (Plate XX).

FRESCOES

On the inside the walls were plastered and the plaster was painted. This was done while the plaster was still fresh, hence the name frescoe. The paint was thus made durable. The method was for the plasterers to keep ahead of the painters that the colours might be permanent.

J. S. Cotman, *del.*

FIG. 14. HADISCOE, NORFOLK.

Grave discussions are recorded in church history as to the merits and demerits of these pictures. The early church was afraid of them. Thus a council held at Elvira, in Spain, in the year 305, passed a canon declaring that "pictures ought not to be in churches." Yet, in less than a century, St. Paulinus (who curiously enough, had spent much time in Spain), describes the elaborate pictures that were in his church at Nola in Italy.

Later we find pictorial teaching extolled. Thus St. Nilus advised that the "Holy Temple" be adorned on all sides with Scripture pictures by the hand of the most skilful artist. Probably every mediæval church had its walls painted with pictures, the Doom appearing to have been the most favoured subject. This, no doubt, was why the Reformed church attacked the practice so vehemently. So there came about the age of whitewash, when figures and pictures which could not be removed were covered with lime, and it has only been by the careful removal of the lime that of late years many frescoes have been discovered.

CONSECRATION CROSSES

By an ancient law the building of a church might not be undertaken until the bishop of the diocese had visited the proposed site and fixed thereon, with solemn prayer, the precious Cross. And, again, on the completion of the building, mural crosses were cut or painted upon the walls, 12 upon the outside, and 12 within the church. The height of these crosses was ten palms (about seven and a half feet) above ground, and a ladder was, therefore, provided for the bishop to reach the places where he was to make the sacred sign with his thumb, which had been dipped in holy oil. Only in a few cases have these crosses survived, for most of them were afterwards painted, not chiselled out, and in the frequent re-plastering and decorating of church walls, they

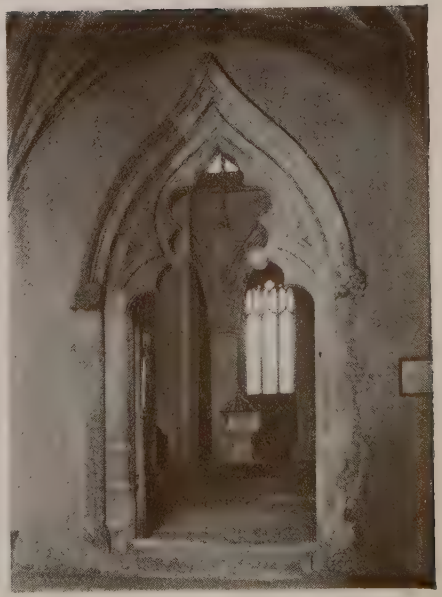
have disappeared. The finest set extant are, perhaps, those of Ottery St. Mary, Devonshire (Plate VII). These are elaborately sculptured. A painted dedication cross may be seen on the west wall of the old Priory church at Leominster (Fig. 15).

FIG. 15. DEDICATION CROSS, LEOMINSTER.

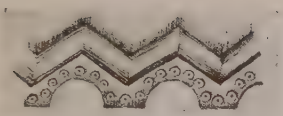
1. Milverton Church (Devonshire).

2. Dedication Cross, Ottery St. Mary.

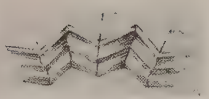
1. Rochester Cathedral. West Entrance. Norman Doorway with Carved Tympanum.



2. Cley (Norfolk). Door, South Porch, with Ogee Dripstone.



CHEVRON.



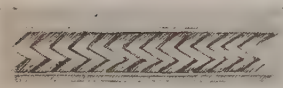
CHEVRON.

BILLET.

NAIL HEAD.

LOZENGE.

CHEVRON.



CHEVRON.

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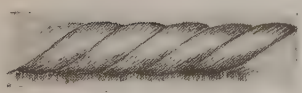


CABLE.

DOUBLE CONE.

NORMAN ORNAMENTS.

North Porch, Wells Cathedral.
With Dogtooth Ornament on the Arches.

CHAPTER V

DOORWAYS AND PORCHES

GENERALLY parish churches have at least two doorways : one for the use of the parishioners giving entrance to the nave, and a priest's door opening into the chancel. More often there are two, or even three, entrances into the main body of the church, but where there is but the one it is usually upon the south side. There was in mediæval days a curious dislike to the north side. It was called the 'wrong side' of the church, and the graveyard there was appropriated as far as possible to the interment of unbaptized infants, excommunicated persons, and suicides. There was also a superstition that the devil entered and left the church by the north entrance. The font, too, is commonly placed in the nave between the north and south doorways, and it is suggested that this custom arose from the belief that at the baptism of an infant, the good spirit entered by the south, and the evil spirit was driven out through the north. Even to-day, where there is a north and a south doorway, to a church, it is the latter that is most frequently open, though doubtless, climatic conditions are now the determining factor.

It is not, however an invariable rule that if there is but one public entrance to a church, it is on the south side. The relative position of church and village was sometimes considered and the main door placed at the most convenient point. Occasionally the course of an ancient roadway influenced the disposition of the doorways, and by studying these points interesting light may be thrown upon the local

geography. In a number of churches the only entrance is at the west end, often through the tower. The tower doorway, however, had chiefly a ceremonial purpose and was used in the great processions which took place on festival days. These processions formed sacred pageants and as an essential feature was the carrying of the Blessed Sacrament, which was enclosed in an ornate vessel over which was borne a rich canopy, it was necessary for the tower doorway to be wide enough to accommodate the Sacred Offering. So we find that in the larger parish churches, and especially in collegiate churches, the tower entrance is lofty and imposing. This is the probable reason for the abandonment of the double doorways, which were common in the Early English period, for the central pillar must have proved inconvenient at the processional seasons.

Many of the earliest Norman doorways which survive are built with a straight lintel over which is a relieving arch the semicircular piece of masonry between the two, called a tympanum, being carved (Plate VIII, Rochester). The arch above the lintel was a necessary precaution, for a long block of stone is incapable of carrying a heavy weight. Stone is unlike steel. It can resist compression, but not tension. This was the problem in classic architecture, and to overcome it the Greeks placed their columns near to one another to make the bridge of stone as short as possible. Nor did they carry their walls to a great height, the length of the column usually determining the height of the building. The Romans, however, used a relieving arch which they concealed beneath plaster or veneer of marble, and were enabled to give their buildings greater height above their doorways.

Later Norman doorways are easily identified (Fig. 16). They consist of a series of recessed semi-circular arches lavishly carved with characteristic ornaments (Plate IX). Possibly this form of doorway arose from the thickness of

the walls, for a long tunnel entrance would obviously be ugly. But the Norman fondness for recessing became so marked that the builders often thickened their walls around

[J. S. Cotman, *del.*

FIG. 16.

NORTH DOORWAY, HALES CHURCH, NORFOLK.

the doorways that they might have additional arches and therefore further scope for carving. In other words, these arches are decorative rather than structural. A large number

of Norman doorways have survived and the reasons are not difficult to find. In the first place their richness made their destruction undesirable. Secondly they were commodious. Windows might have to be replaced because the light they gave was inadequate, but the doorways were large enough, and though the main fabric might be taken down, the jambs and arches of the entrances were reset in the new walls.

The practice of building multiple and deeply recessed orders was carried on by the first Gothic masons though with certain modifications. The arch became pointed, and the Norman carvings were abandoned. In their place there was either the typical Early English dog-tooth ornament (Plate XXIV, Eye), or a series of delicate though deeply-cut mouldings (Plate X). The tooth ornament was most popular in the second quarter of the thirteenth century, but the practise of shadow effect, obtained by the alternation of the rolls and hollows of a plain moulding, flourished for the first half of the XIIIth century and, in fact, was never wholly abandoned, though the character of the mouldings changed with the passing of the years. In the last quarter of the XIIIth century, the ball-flower ornament came into use (Plate XI), and was popular during the first quarter of the XIVth century. Its origin is said to have been the hawk's bell, or the string of bells which were formerly attached to the collars of horses and oxen. At this time the ogee arch formed a distinct ornamental feature, and doorways were often enclosed beneath an ogee canopy (Plate VIII, Cley). The finest examples are enriched, a frequent device being to terminate the apex of the arch with a floriated finial while the contours of the arch are elaborated with crockets and cusps. Though the majority of doorways with ogee arches belong to the first half of the XIVth century, that is, prior to the Black Death, this form of arch persisted to the close of the Gothic period.

The Perpendicular doorways are as easily recognised as

the Norman. In this style the builders favoured the four-centred or flattened arch, which they enclosed in a square head or hood mould (Fig. 19), the spandrels filled with characteristic ornament. To a certain extent the principles and characteristics of bases, shafts and capitals,

[J. S. Cotman, *del.*

FIG. 17.

WEST FRONT OF CASTLE RISING CHURCH, NORFOLK.

which go to form the frame of a mediæval doorway are those of a typical arcade of their period, and the reader is referred to the chapter on pillars and arches for more detailed information concerning these features.

In this country the lateral doorways into the naves of

parish churches are customarily protected by porches which in some cases reach a very high degree of development. Generally these elaborate porches are later than the Black Death. Earlier ones do occur, some actually as old as Norman times, but they are exceptional. Often, however, old doorways are enclosed in later porches, so that a Perpendicular porch leading to an older entrance is not uncommon. The date of a porch may be ascertained from the character of its various members. The windows, doorways, buttresses and ornament must be studied singly. At the same time the general impression which the porch makes upon the eye is often quite distinctive. It may be noted in this connection that the flush-work of East Anglia (Plate XII), is usually xvth or early xvith century work. The wooden porches of East Anglia (Fig. 18), Essex, Sussex, Kent, and Surrey usually date from the late xivth, the xvth, and early xvith centuries, the majority belonging to the middle of this period. In other cases the battlemented parapet, perpendicular arcading, niched buttresses, square-headed doorway, the four-centred arches, and the retilinear tracery of the side windows at once establish the later Gothic style. Relatively few porches dating anterior to the middle of the xivth century are found in parish churches.

The elaboration of the porch is the natural outcome of the desire to intensify the importance of the entrance to the place of Holy Mystery, and the termination of the porch with a cross, and the enrichment of the front with the image of the patron saint of the church are easy to understand. Both these emblems were the object of attack on the part of the iconoclasts of the xvith century, and many have perished ; mutilated stumps and empty niches telling in mute, but graphic, language, their sad story of destruction.

This has occasioned the loss of many of the ancient dedications. It is probable that the primitive Christian churches were not dedicated, that is to say, they were not

placed under the protection of any particular saint or patron. How exactly the present custom arose is not certain. No doubt several factors contributed. A church, for example, might become possessed of some relic, in which case it would be natural to associate saint and church in the closest possible

[J. Johnson, *del.*

FIG. 18.

NORTH PORCH, BOXFORD CHURCH, SUFFOLK.

manner. Other churches, again, might be built on places sacred to some saintly memory and the intercession of the local saint would then be invoked for the welfare of the building. In other cases a church might be founded by a

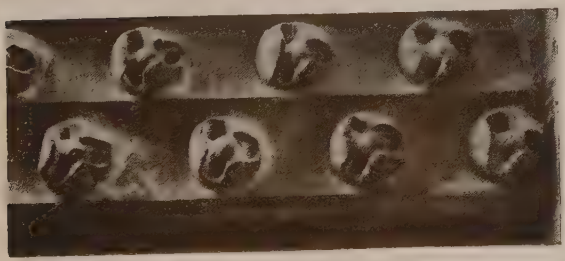
wealthy layman who had personal reason for placing his benefaction under the patronage of his favourite saint. That there was a strong mediæval faith in saintly intercession and protection is, of course, well known, and its undue emphasis was one of the charges brought against Romanists by the Reformation party.

The material of which church porches were built naturally affected their design. Three outstanding types may be referred to :

(1) *The Flush-work porches of East Anglia.* (Plate XII)

This extraordinary and beautiful feature arose from the want of freestone for building purposes. An enormous number of the churches of Norfolk, Suffolk, and Essex are built of flint, freestone being used simply for facings, quoins and so forth, and at some time apparently in the xvth century, the device was discovered of alternating slabs of freestone with the flint as a surface decoration to walls. The mode spread rapidly over the three counties and even made itself felt in Kent. The flints formed the background to the freestone patterns which became very diverse and ornamental. Other parts of the church were similarly treated, but the porch received the first consideration and is frequently found enriched with flushwork while the rest of the church is left undecorated.

Another characteristic feature of the East Anglia porches may be referred to here. It is exemplified in the drawing of St. Nicholas' Kings Lynn (Fig. 19). It will be noted that the doorway arch is enclosed in a square hood mould, which touches the arch at its apex. This hood mould again meets the dripstone at the level of the springing of the arch, where it terminates with a boss or with a simple turn. This is distinctive treatment. In other parts of the country it is usual for the hoodmould or arch to be continued down to the ground.



BALL FLOWER ORNAMENT, GLOUCESTER CATHEDRAL.

AN EAST ANGLIA FLUSH-WORK PORCH, KERSEY (SUFFOLK).

[Geo. J. Lacy, *del.*

FIG. 19.

SOUTH PORCH, ST. NICHOLAS, KING'S LYNN, NORFOLK.

(2). *The Granite Porches of Cornwall* (Plate XIII)

The intractibility of granite coupled with the fact that it weathers badly, led to a severity of design peculiar to Cornwall. Here there is a square solidity which is not without a certain air of nobility. These porches are large and are built of ashlar with double facing buttresses at the angles. Facing buttresses, it should be noted, are the rule in Cornwall and Devon. The string courses are heavy and the pinnacles have rough billets instead of crockets, as moor-stone would not admit of real crocketing. Parapets are embattled.

In one celebrated case (Plate XIII), that of Launceston, the porch, though of granite, exhibits profuse surface carving. But the shallowness of the cutting makes the porch ineffective reminding one of chip-carving, and one feels that reliance for effect upon mass rather than upon detail was a sounder principle.

(3). *Wooden Porches* (Fig. 18)

These are met most frequently along the lower borders of Suffolk, in Essex, and in the southern counties, that is, in districts where stone was difficult to obtain. These porches are generally supported on stone basement courses as a protection against damp, and they exhibit considerable similarity in design. The roofs are steeply pitched and the gable ends fitted with cusped barge boards. The sides usually exhibit conventional window tracery of the period.

In mediæval days the porch had many secular functions. When a man was to be outlawed, it was in the church porch that the first processes were performed by the sheriff, and in the present day custom of posting civic notices inside church porches we have a survival of the days when the porch served the functions of an ancient ' city gate.' Sometimes business transactions were conducted in the porch as a guarantee of good faith, just as the town cross was intended to remind

TIMBER PORCH,
LONG WITTENHAM (BERKS.)

PORCH OF CHURCH,
LAUNCESTON.

1. Clerestory,
St. Margaret's-at-Cliffe (Kent).

2. Holy Water Stoup.
Over (Cheshire).

the buyers and sellers in the public market of their Christian obligations of honesty and fair dealing. Again, to give greater sanctity to an agreement, it was often stipulated that it should be executed in the church porch. Francis Bond quotes the following interesting examples of this in his 'English Church Architecture': "In 1592, the vicar of Sonning, Berks., left a legacy to each of his daughters, 'to be paid in the church porch. In 1462 John Lea covenanted on annual payment to him of 6s. 8d. in the south porch of Market Harborough, to keep the chimes 'in good, sweet, solemn, and perfect time of musick'. In the diocese of St. Asaph, the interest on £5 was left, in 1712, for the purchase of flannel for four old men and women who were to draw lots or throw dice for it in the church porch. In the South porch of Eye Church, Suffolk, is a stone ledge, which may be a dole table or a counter on which payments of money might be laid."[1]

Until the time of Edward VI, marriages were performed in the church porch, Chaucer's phrase 'taking a wife at the church door' reflecting this old custom. So of the wife of Bath he says:

> 'She was a worthy woman all her live,
> Husbands at church door had she five.'

The concluding portion only of the wedding ceremony was held before the altar. As late as 1625, it is recorded that Charles I was married by proxy to Henrietta Maria, sister of Louis XIII of France, at the Church door of the Cathedral of Notre Dame.

Church porches were also used as places of sepulture. Persons of rank or of particular sanctity were buried there before the practice arose of allowing interment in the church itself. It is said that St. Chad was one of the first thus to be buried, and there is an old legend told of St. Swithin that

[1] 'English Church Architecture,' 733.

his corpse was placed in the church porch because it was not allowed in the church, and that it remained there for forty days during which time it rained incessantly. There is a record of the Mayor of Rye being buried in the parish church porch in 1495, while instances of this mode of burial occur in the churchwardens accounts before the Reformation, in many other parishes. Payment always seems to have been made for the privilege.

The uses to which the church porch might be put was a contributing factor to the aggrandisement of the fabric by the addition of an upper chamber often spoken of as a parvise (Fig. 19), though objection is made to this term. Sometimes, as at Beccles (Suffolk), the porches were built with two upper storeys, one above the other, but a single one was the rule. Their function seems to have been various. Occasionally these chambers are furnished with fireplace and chimney as though they were living rooms. Possibly the fireplace was for the purpose of preparing and baking the altar bread. At Ledbury a piscina is built into the parvise wall showing that it once contained an altar, and there seems no doubt that these chambers occasionally functioned as chapels.

In many porches there remains a stoup or stock (Plate XIV) for holy water, which was placed there that worshippers when entering the sacred building, might dip the fingers of the right hand therein and bless themselves with the sign of the cross. The making of holy water was abolished by the Reformers, and nearly all stoups were destroyed, mutilated, or blocked up, but there is a survival of the making of holy water in the service for the baptism of children and adults, wherein the priest prays "Sanctify this water to the mystical washing away of sin."

CHAPTER VI

WINDOWS

THE date of an old window can be determined with some degree of accuracy from its form, but, at the same time, any deductions that are made must be tempered by the general character of the fabric and its environment. I do not mean the weathering of the stone, important as that may be, but that one needs to observe the evidences of wealth which the building exhibits. We may say, for example, of a window that it belongs to a particular period because of its style. But if that style be a simple one, and the church in which it appears small and insignificant, situated perhaps in some remote district where poverty must have been the rule, such a window may not be as old as it looks. It required money to be in the fashion in mediæval days as now, and though a poor parish might like to have elaborate windows in its church, if the people did not possess the means they had to do without. Moreover, outlying parishes might be behind the times and have strong conservative tendencies. Old forms tend to linger in the backwaters of civilisation, and allowance should be made for this when attempting to assign a date to any particular part of a fabric.

NORMAN WINDOWS

The Normans usually inserted small windows into their churches (Plate IIa, Swyncombe). There were several reasons for this. Firstly the walls were so thick that to fenestrate them was a difficult matter. Secondly their

churches were built in times of violence. A window offers facility for attack and for theft, and is, therefore, a source of weakness. An even more potent reason lay in the expense of glazing. The art of glass-making was not far developed, and there is reason to suppose that in early Norman work window openings were covered with some translucent

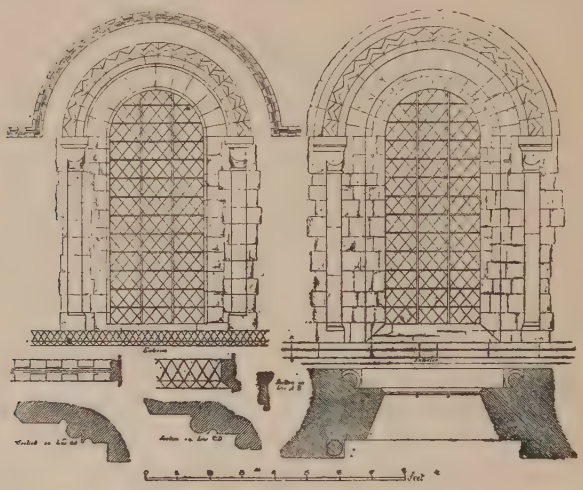


FIG. 20.

WINDOWS IN SOUTH AISLE, WALTHAM ABBEY, ESSEX.

fabric, or with shutters.[1] Again, churches in olden times, were not heated, and the problem was rather to keep out the cold than to provide ventilation. Perhaps, too, the Norman type, which is a relic of the classic, is characterised by scanty fenestration because it was born in a land of warmth and sunshine where big windows were unnecessary and even

[1] Even in the great Norman Abbey at Peterborough after the nave was finished in 1190, 40 of the windows remained filled with reeds and straw to keep out the rain for another 20 years (*Cradock's 'Peterborough,'* p. 52).

undesirable since they would admit too much light and too much heat.

The identity mark of the Norman and Transitional windows is the round head which is invariable (Fig. 20 and Plate XIV), not occurring again in church architecture until the Renaissance invaded England. This, however, has reference only to the style, not the date. It is true to say that the vast majority of round headed windows belong to the XIIth century, but they also occurred before and afterwards. Pre-Conquest work is relatively rare, but many windows with round arches were built in the XIIIth century. It should be noted that the Norman type of window persisted long after the pointed arch was introduced into other parts of the church fabric. Frequently one meets with a building which has a nave arcade of pointed arches, while the walls are pierced with semi-circular arches, and the assumption is then made too readily that the exterior is older than the interior. The reason the arcades were pointed and not circular was to facilitate vaulting. This did not apply to windows and doorways which continued to be round headed because of their beauty, the Benedictines especially, retaining them until they became an architectural anachronism.

LANCET WINDOWS

Between the Norman window and the Gothic window there is a big break, due chiefly to the introduction of the pointed arch. But the new style, as we have seen, did not make itself felt suddenly. On the contrary, it was absorbed very slowly, and many years passed before the Norman work was left behind. During these transitional years the two styles developed side by side. We may imagine the conservative builders clinging persistently to the form they had learnt so well, while the more progressive architects welcomed anything new. The date assigned to the earliest Lancet

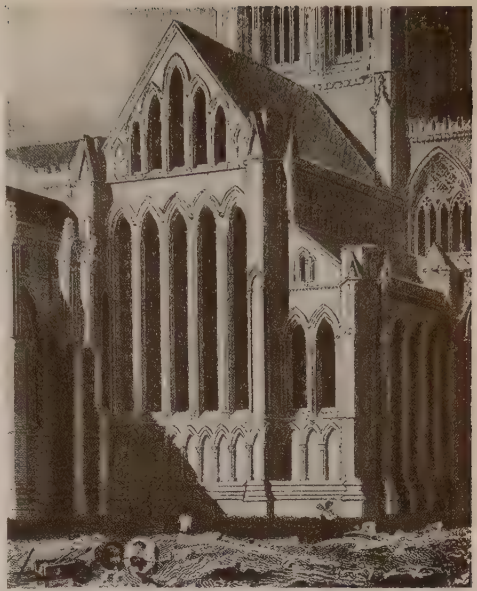
window is 1170, but the style was not consistently established till the XIIIth century, and as it persisted to the end of that century, we may speak of this feature of Early English Gothic as XIIIth century work. At the same time many important changes in the type itself occurred during that 100 or so years. At first the Lancet windows (Plates XV and XVI), so called because they are narrow and pointed, were small, and were set at some distance apart, but gradually the custom arose of making them very tall,[1] and of grouping them first in pairs and, later, in sets of three, five, or seven. These graded groups were used more particularly at the ends of naves, chancels, or transepts, where they fitted in well with a gable roof. Many varieties were possible in this device of grouping, which was peculiarly an English development of the first pointed Gothic.

An important development of window tracery resulted from this grouping. It is easy to observe the stages in this evolution. Turning to Plate XVI, it is seen that, in the example from Ribchester, the windows are isolated ; but in the second example, that from Whalley, the window lights are linked together by the dripstone. In the succeeding example from St. Alban's (Plate XVII), the window lights are set close together and this led inevitably to the grouping of all the lights under a common dripstone, as in the example from Warmington (Plate XVII). But this arrangement left a space of blank masonry between the lateral lights and the central one, or between the lights and the containing arch. To ornament this space it was pierced by some simple figures such as a circle or quatrefoil (Plate XVII). This is known as plate-tracery, so-called because the design was cut out of a plate of stone, just as a pattern in wood may be cut with a fret or key saw.

In Plate XV (Raunds), there is shown a very beautiful

[1] One at Bottesford in Lincolnshire is 15½ feet high though only 8 inches broad.

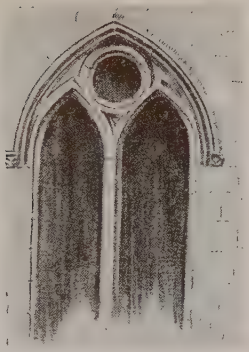
1. Raunds (Northants).
Early English Gothic.
O. Jewitt, del.



2. York Cathedral, S.W. Transept.
Showing Graded Lancets.
Ed. Blore, del.

1. Whalley (Lancashire).
2. E. Window, Ribchester (Lancashire).

1. St. Albans.



2. Plate Tracery.

3. Warmington.

1. Geometric Tracery,
Ripon Choir.

2. Reticulated Tracery,
Ludlow, West of North Aisle.

development of the Early English windows. The thickness of the walls necessitated windows being built with a deep splay which, if left plain, was unsatisfactory. A rear arch was, therefore, built on the inside and enriched with minor arches. The outer arch would be glazed, but the inner one generally remained unglazed, its lights divided by a pillar instead of by a mullion. This permitted a more ornate effect. Particularly was this mode adopted in the belfry windows of towers where the additional strength gained was an advantage.

GEOMETRIC TRACERY

The next step in window construction was the introduction of bar tracery by which the design within the window arch was sculptured into numerous curved bars which were pieced together within the window frame. The earliest known example of this probably dates from about 1240, and the method has been in vogue ever since. But each century used its own designs in the tracery, so that it is possible, within reasonable limits, to assign a date to an old window by observing the pattern and its workmanship.

The first period of window tracery, called Decorated, continued up to the time of the Black Death, that is, roughly, for 100 years, and it is divisible into two definite styles, known respectively as Geometric (Plate XVIII, Ripon), and Curvilinear or Flamboyant (Fig. 22). The first of these flourished during the last quarter of the XIIIth century, and during the XIVth century up to about 1315; and the second from about 1315 to 1349, the year of the Black Death. This does not mean, of course, that Geometric tracery ceased to be employed after 1315, but from that time onwards, it is not often we meet with a pure example. Similarly windows, both of the Geometric and the Curvilinear styles were designed after the Black Death, but they

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were the exception, and even in those parts of England where the type lingered, it was only for a short time.

The Geometric windows may, for convenience, be divided into four groups :

1. Windows with tracery consisting of circles cusped or uncusped. The common figure is a large circle in the centre with smaller ones grouped round it, as in the example from Ripon choir (Plate XVIII).
2. Windows having a centre-piece of some geometrical figure other than a circle. Obviously this group may contain many varied examples, one of which is pictured in Fig. 21.
3. A third group consists of windows without any centre-piece, the tracery, instead, being composed of a reticulated pattern (Plate XVIII, Ludlow). This type, of course, approximates to the Curvilinear tracery which developed shortly afterwards.
4. Fourth, many windows of this period are composed of a group of graded lancets with bar tracery. It is important to observe the distinction between this class of window and a simple group of Early English lancets. An example is shown from Blythe Abbey (Plate XIX).

Windows are now definitely divisible into two parts, an upper part containing the tracery, and a lower and larger part containing relatively large openings for glass, separated from each other by vertical bars of stone called mullions, and sometimes strengthened by horizontal stone bars called transoms. The dividing line between the tracery and the lower lights is usually at the springing of the arch.

We are now entering upon the period of large windows. The groups of narrow Lancets were certainly beautiful, but they did not admit of very much light. It was particularly the delight of the xvth century mediæval builders to make their churches cheerful. They loved bright colours,

1. Blythe Abbey (Nottinghamshire) (Decorated).
2. Dorchester (Oxon.) (Decorated).

PLATE XX.

1. LAVENHAM (SUFFOLK). (PURE PERPENDICULAR).
2. BEDINGHAM (NORFOLK).

but though painted glass had become general, it was very thick and opaque. Civilisation in England was also making progress, the rights of property being better respected, and conditions of life safer, so that with the dawn of the XIVth century it seems as though here and there the builders may have been feeling their way to that ideal of Gothic construction when the vaulted roof could stand without the support of walls and be suspended only upon buttress and arcade, leaving the whole space between the buttresses for one great expanse of glass. We may say that, just as the early Norman window was simple, and the later Norman window relatively ornate, so the early Geometric window was relatively small and simple in design compared with the later work. Very few really large windows were built before the close of the XIIIth century.

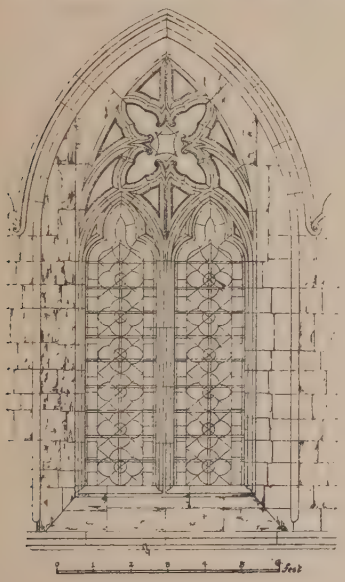


FIG. 21.
IN CHAPEL, CHARTHAM, KENT.

The increase in the size of windows was rendered possible by the use of tracery. It must be borne in mind that the function of tracery is not wholly decorative. It has also a constructional value for it enables the glass to withstand wind pressure. The tracery is also a support to the arch, yet so cleverly is the tracery jointed and disposed that it is possible to remove portions for repair without endangering

the stability of the window. Even the cusping has its work to do and is not entirely an æsthetic feature. A cusp thickens and strengthens a curved bar of stone where the greatest pressure is exerted.

CURVILINEAR TRACERY (Fig. 22)

We have now brought our story well into the XIVth century, when the skill of the masons was such that there seemed endless possibilities for their craft. Window tracery became exceedingly rich and varied. But there remained a specific limitation. The figures were still purely geometric. They consist of circles or segments of circles, trefoils, quatrefoils, the perimeters of which though they touch at points, are distinct. There remains the last stage of the Decorated period which steadily developed in the first half of the XIVth century until its progress was arrested by the Black Death. This is the Curvilinear or flowing tracery, called in its most extravagant forms, Flamboyant. Its character has been anticipated in the type of window shown in Plate XVIII (Ludlow).

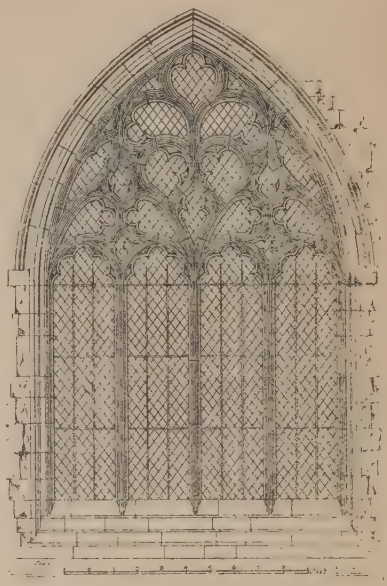


FIG. 22. N. SIDE OF CHANCEL, HOLBEACH, LINCS.
A Curvilinear Window.

Like the Geometric tracery, the forms are inexhaustible and all attempts to classify them have failed. It has been suggested that the mode may have originated in the desire of the glass painter to tell the story of saints and angels. For as these are never known to have been of geometrical shapes, neither square, nor circular, nor triangular, unless they were so in Laputa, the difficulty of using the tracery glass for such subjects was almost insuperable. But curvilinear tracery could be utilised to the full for this purpose. It seems "to invite the hierarchy of heaven to tabernacle in its niches with outstretched wings." Nevertheless there are not wanting those who regard the flamboyant window as indicating a decadent spirit, arguing that it is not in the nature of stone thus to be bent and twisted. An example of flowing tracery which will serve to indicate the general character of the type is given in Fig. 22. This, too, was the period of the ogee arch (Plate VIII, Cley), and at this time also square-headed windows were used (Plate XIX). It is important to note this, as the idea is prevalent that square-headed windows are late Perpendicular. It cannot be too strongly emphasised that after the early English period a window is more easily dated by its tracery than by any other feature.

PERPENDICULAR WINDOWS

After the Black Death visited England in 1349-50, there occurred an architectural change and the Perpendicular or Rectilinear style came into general use. As has been said earlier, it had already appeared in Gloucester Cathedral, but it did not spread to the rest of the country till the second half of the XIVth century. In East Anglia the Decorated style lingered for a few years, but for the greater part of England the Curvilinear movement was arrested by the tragedy of the Black Death. It seems as though this calamity exercised

a sobering effect upon the community, and that the flamboyant tendency of the late Decorated Gothic was felt to be contrary to the new religious spirit. Church building also became parochial, and this must have had its effect upon window tracery. For it is generally admitted that the Perpendicular style favoured the stained glass artist, and the worshippers in a parish church would be far more in need of pictorial instruction than the monks and canons of the Greater Churches. The architectural tendency was also in the direction of larger and more numerous windows and the cost of rectilinear tracery must have been far less than the complicated geometric and curvilinear designs. As wealth was largely transferred after the Black Death from the great landlords to a new merchant class, one may perhaps, see in the change of style some evidence of commercial shrewdness.

There are those who look upon the Perpendicular window as evidence of Gothic decadence, but this is to misunderstand the Gothic sentiment and spirit. The whole tendency of this style of architecture was to transmute the stone of the church fabric into glass "to rear to the honour of God a spiritual house of coloured light." This ideal was made possible by two changes that had occurred. Firstly the art of glass-making had so developed that the glass could be thin and translucent. Secondly, the scientific skill of the mason now enabled him to poise a vaulted roof supported solely by buttress and arcade. Solid walls had become unnecessary. This is well seen in the case of Lavenham, one of the most glorious of the late Perpendicular churches (Plate XX).

The great size of the Perpendicular windows favoured their peculiar lines of construction (Fig. 23 and Plate XXXV). The wide arch requires the support of the vertical mullions, and of these the main ones must rise from the sill and carry through to the dripstone ; while the secondary

mullions, which rise from the apex of each arch in the tracery, are needed to give additional support. To resist wind pressure, horizontal transoms must be inserted, and so the gridiron pattern results as an inevitable climax. But the gridiron was only the frame which contained a veritable

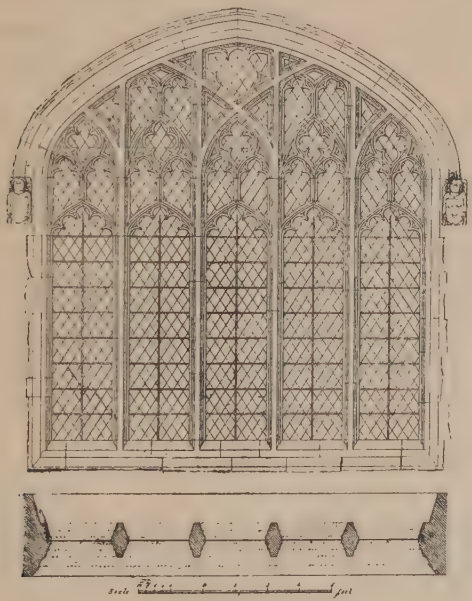


Fig. 23.

S. Window (Perp.) of S. Transept, Little Shelford Church, Cambridgeshire.

portrait gallery. Tier upon tier of prophet, priest and king, of martyr, saint, and angel, rose up, one in each niche, each figure set in a canopy of silver glass. The glass became more important than the tracery, the picture than the frame. This was surely logical. The beauty of tracery is best

appreciated from without the church ; within, the effect is lost. It was a sound principle of art to concentrate on the stained glass which "though ineffective externally was, within, a sea of glory."

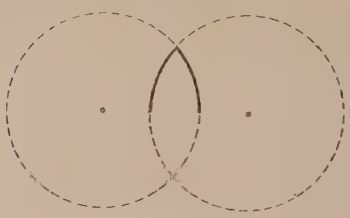


Fig. 24.

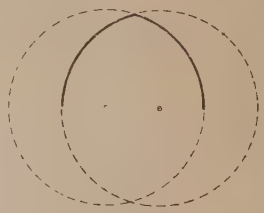


Fig. 25.

Pointed Arches Struck from Two Centres.

The new style lasted for two hundred years, during which it underwent a marked change. At first the window arches were struck from two centres as in the older forms (Figs. 24 and 25), so that the span was not increased. Gradually,

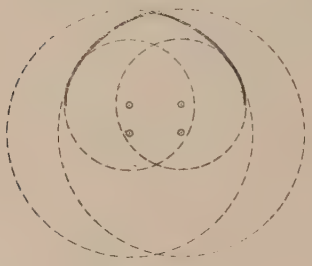


Fig. 26.

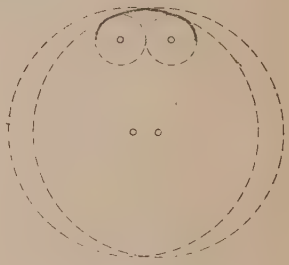


Fig. 27.

Pointed Arches Struck from Four Centres.

however, as the desire for still bigger windows made itself felt, the four-centred arch came into general usage (Figs. 26 and 27). But the distinguishing feature does not lie

1. Lowick (Northants).
Perpendicular.

2. Thornton-le-Moors (Cheshire).
Perpendicular.

NORMAN ARCHES. 1. DUNSTABLE. 2. FRIESTON.

so much in the form of the arch, nor even in the continuous mullions, as in the presence of vertical bars in the tracery. In some of the later Decorated styles there are continuous mullions and square-headed windows (Plate XIX, Dorchester), and these windows are sometimes mistaken for Perpendicular work, a mistake which will not be made if the tracery is closely examined. Another characteristic feature of Perpendicular work is the presence of the dagger form in the tracery (Fig. 23), and a third, that the heads of the lower lights are generally cinquefoiled, whereas in older work they are trefoiled. (Compare Fig. 21 with Fig. 23).

Towards the end of the xvth century the decadence of the Gothic tradition can be observed (Plate XXI, Lowick). The window arches become flatter and flatter until they disappear, and in the second quarter of the xvith century, the window head tends to become a straight line. All decorative treatment is now being abandoned. The window lights rise almost to the level of the dripstone so that there is no room for tracery, simple figures in the spandrels between the lateral lights and the window head being all the enrichment that is expended. Even the cinquefoils at last disappear so that the lights have plain segmental heads, and the window at last consists of a rectangular frame, divided by straight mullions, plainly chamfered (Plate XXI, Thornton-le-Moors). So the Gothic spirit passed quietly away.

WINDOW ANALYSIS

The following classification will prove of assistance in dating an old window. It must not be assumed that every possible variant is included. It is offered as a guide only to the majority of examples.

A. Windows beneath Rectangular Heads.

Description.	Style.	Probable Date.	Reference.
(i) Having vertical mullions and no tracery.	Debased Perpendicular.	xvith century.	Plate XXI (Thornton-le-Moors).
(ii) Having tracery, the lower lights with trefoiled heads.	Late Decorated.	xivth century.	Plate XIX (Dorchester).
(iii) The tracery containing vertical bars and the lower lights with cinquefoiled heads.	Perpendicular.	1350-1535.	

B. Arched Windows with Tracery containing Vertical Bars

Description.	Style.	Probable Date.	Reference.
(i) The arch struck from two centres, the tracery containing curves as well as straight lines.	Early Perpendicular	Late xivth century.	
(ii) Large windows the arches struck from three and four centres, the tracery containing straight lines.	Perpendicular.	xvth century.	Fig. 23.
(iii) Ornamented transoms often embattled. The arch struck from three or four centres.	Late Perpendicular.	Late xvth century and early xvith century	Plate XXI (Lowick).

C. Arched Windows with Tracery consisting of Curved Bars.

Description.	Style.	Probable Date.	Reference.
(i) With flowing tracery (undulatory curves).	Curvilinear.	1315-1360. (In East Anglia up to 1400).	Fig. 22.
(ii) With lancet lights and simple bar tracery.	Late Decorated.	1300-1350.	Plate XIX (Blythe Abbey)
(iii) With jambs and mullions studded with ball-flower ornament.	Decorated.	1300-1350.	Plate XI
(iv) Having acutely pointed ogee arches.	Geometric and Curvilinear.	1315-1360.	An ogee arch is shown in Plate VIII.
(v) Reticulated tracery.	Geometric and Curvilinear.	1300-1350. (In East Anglia later).	Plate XVIII (Ludlow).
(vi) Tracery composed of Geometric figures with a centre piece other than a circle.	Geometric.	Early XIVth century.	Fig. 21.
(vii) Tracery composed of circles plain or cusped.	Early Geometric.	Late XIIIth and early XIVth centuries	Plate XVIII (Ripon).

D. Windows with Pointed Arches but no Tracery.

Description.	Style.	Probable Date.	Reference.
(i) Small single windows.	Early English.	XIIIth century.	Plate XVI.
(ii) In groups often graded.	Early English.	1250-1300.	Plate XV. (York).
(iii) With dog-tooth ornament	Early English.	XIIIth century.	This ornament is shown on Plate X.
(iv) Lights with foliated heads.	Early English.	1250-1300.	Plate XV. (Raunds).

E. Windows with Round Arches.

Description.	Style.	Probable Date.	Reference.
(i) Having two lights separated by a baluster.	Early Norman.	Late xith or early xiith centuries.	Plate XIV.
(ii) Small single light windows.	Norman.	xiith century.	Plate IIa. (Swyncombe). Fig. 20.

CHAPTER VII

ARCADES

IN aisled churches the walls which carry the roof are supported by arches which spring from pillars or piers. The two words, pillar and pier, are not absolutely synonymous the word pier denoting a heavier mass of supporting masonry than would be meant by a simple pillar. We speak, for example, of a tower being supported by piers, and equally the term pier is used to denote large clusters such as those in the naves of Ely Cathedral, or great monster cylinders like those of Gloucester or Tewkesbury. In parish churches, however, the proportions of the building being slighter, it is customary to speak of pillars. Sometimes the term column is employed, but if we are to be exact in our terminology, the word column should be restricted to classic and classical architecture.

THE NORMAN ARCH

Mediæval ecclesiastical architecture in England is of the type known as arcuated, this distinguishing it from the ancient Greek mode which was trabeated. In trabeated architecture the intervals between the columns are bridged not by arches but by lintels. From a constructional point of view this is not good because stone is a granular substance incapable of supporting a heavy load. It cannot bend, and if too much weight is imposed upon it, it must crack and break. But in arcuated construction the stone blocks which form the

arches are in a state of compression, and are used therefore, in the manner in which their strength is greatest.

The Norman arch is semi-circular. This has the disadvantage that the height must be exactly equal to half the

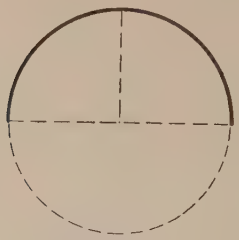


Fig. 28.

Semicircular Arch.

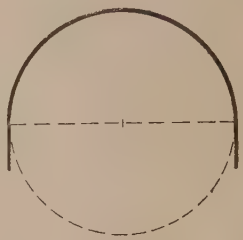


Fig. 29.

Stilted Arch.

span (Fig. 28), which makes for monotony and limits architectural enterprise. In order to overcome this as far as possible, three variants of the round arch were used, though sparingly. The first of these is called the stilted arch (Fig.

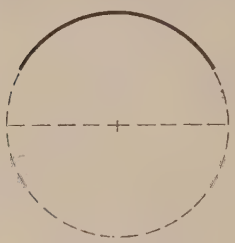


Fig. 30.

Segmental Arch.

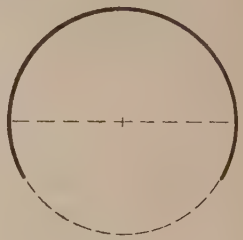


Fig. 31.

Horseshoe Arch

29). In this form the arch does not spring from the ends of the diameter, but at some distance above it, so that a narrow arch may be brought to a higher level. A second variation

NORMAN ARCHES (BUILT IN ARCADE).
THORNEY ABBEY (LINCOLNSHIRE).

1. EYE (SUFFOLK).
Early English Arch and Capital with Dogtooth Ornament.

2 CHURSTON FERRERS (DEVON.)
Perpendicular Pillar and Arch with Wave Mouldings.

was produced by reducing the semicircle to a segment of a circle which has the effect of flattening the arch (Fig. 30). These segmental arches are not very common ; they must be distinguished always from the forms used in the Perpendicular period, which were struck from three and four centres. Thirdly, the Normans sometimes employed the horseshoe arch in which the curve is carried downwards below the diameter of the semicircle (Fig. 31), a form more frequently seen in Byzantine work.

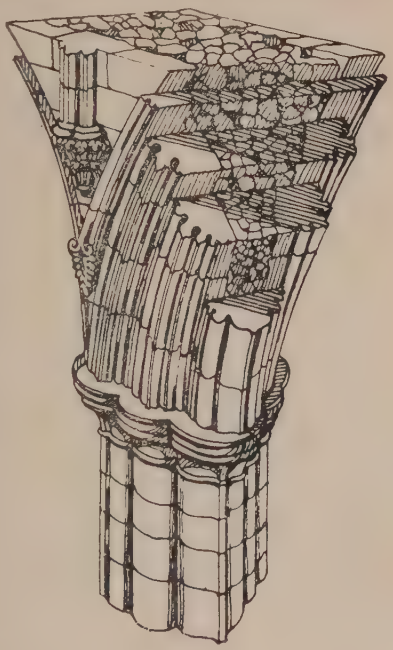


Fig. 32.

Construction and filling of Compound Arch, Whitby.

The usual form of semicircular arch in English ecclesiastical architecture is compound that is, the arches are built of several rings or "orders" (Plate XXIII, and Fig. 16). This mode arose from the need for structural economy. Everyone who has seen an arch in process of construction knows that the workmen first make a temporary wooden support which is taken away when the arch is finished. Such a support is usually the depth of the arch ; that is to say, if the wall is three feet thick, the arch itself and the wooden support are also three feet deep. But if the arch is a compound

one, this need not be so. Then, only the innermost order has to be supported, since this order acts as the support for the subsequent ones. This is seen in Figs. 32 and 33. This was a very important discovery in mediæval times. Norman walls were very thick, perhaps as much as six feet, and though it would offer no difficulty in these modern days to cut planks to support an arch six feet deep, it would be a very grave undertaking before circular saws were invented.

At first the edges of these orders were square cut (Plate XXII, Frieston), and where we meet with this form we can usually assign an early date to the work. But later in the XIIth century, the edges were bevelled (Plate XXIII), and later still, decoration was introduced. The carving in the XIIth century partook of the usual Norman designs (Plate IX), and in the early XIIIth century, the dog-tooth ornament was widely used (Plate XXIV, Eye). After that the custom of carving the arches ceased. Instead, they were moulded (Plate XXIV, Churston Ferrers), which continued to the close of the mediæval period.

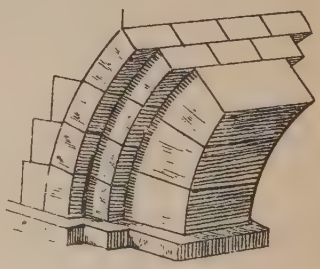


FIG. 33.

THE COMPOUND ARCH.

THE GOTHIC OR POINTED ARCH

The Norman round arch was struck from one centre (Fig. 28). The first Gothic pointed arches were struck from two (Figs. 24 and 25). Therein lies the essential geometric difference. It will be noted also that the more acutely pointed is the arch, that is, the narrower it is, the further out must be the centres of the contributing circles.

The origin of the pointed arch has always been a matter of architectural interest and controversy. The poetic idea that the Gothic style was an imitation of an avenue of trees is now utterly discredited. So, too, is the view once held that the origin is to be found in the intersection of

G. Cattermole, *del.*

FIG. 34.
INTERSECTION OF ARCHES, CANTERBURY CATHEDRAL.

arches as seen in Norman arcading (Fig. 34). That pointed arches do occur in this figure is, of course, obvious. The chief argument against this being the origin is advanced by Francis Bond, who notes that in Normandy and England, where intersecting semi-circular arches are popular, the

pointed arch is latest in appearing, and conversely that in central and southern France, where the intersecting arch is uncommon, the pointed arch appears early.

"We used to be told," says W. R. Lethaby,[1] "that Gothic architecture was largely the result of the East acting on the West, mainly through the Crusades; Wren thought it should be called Saracenic. It has been the intermediate fashion to discard large views, and to work at particular areas and details, but it is probable that we shall have to come back a little way towards the earlier position. Much of the romance spirit which underlies the literature and art of the early Middle Ages seems to have been born of contact with the East; and the development of the Saracen schools of art was so parallel with those of the West that it seems probable, as Prof. Petrie has suggested, that both belong to the same great cycle."

Those who look upon architecture as purely constructive maintain that the pointed arch was entirely due to the efforts of the builders to cover a wide span with a stone roof. This could not be satisfactorily accomplished until an arch was discovered which could be expanded or contracted at will, and at the same time be of the same height. In other words, the pointed arch followed the demand for vaulting. That it solved the problem of vaulting is obvious. The later Gothic arches also facilitated vaulting. Probably the beautiful fan vaulting (Plate XXXIV), that makes so glorious a feature of this period of Gothic art would never have been used but for the discovery of the four-centred arch (Figs. 26 and 27). This arch had also its economic value, for it was a saving in masonry. It is also suggested that the flatter arch harmonised better with the general construction of the later Gothic buildings, and it must be admitted that it does make for unity.

It is not possible to assign a date to an arcade by the simple

[1] '*Architecture.*' (Home University Library)

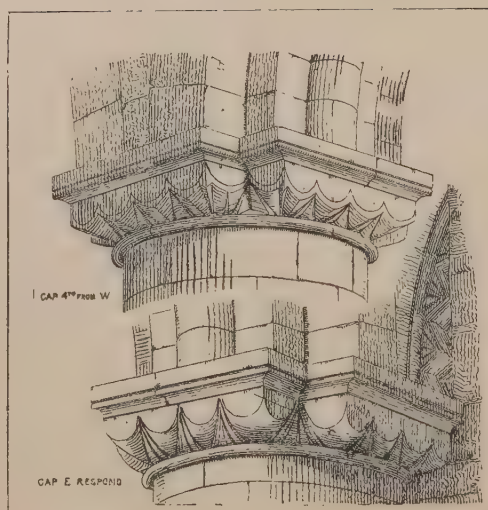
process of estimating the acuteness of the arch. It is true that in the case of windows one may say that the finer the point and the narrower the span, the older probably is the arch ; and it is not the rule to find Perpendicular windows contained within arches as narrow as those, say, of the Geometric period. But with nave arcades the four-centred arch did not come into vogue till very late, and the best known examples belong to the close of the xvth and the beginning of the xvith centuries. A better criterion of date is therefore the character of the mouldings of the arches which may be roughly classified as follows :

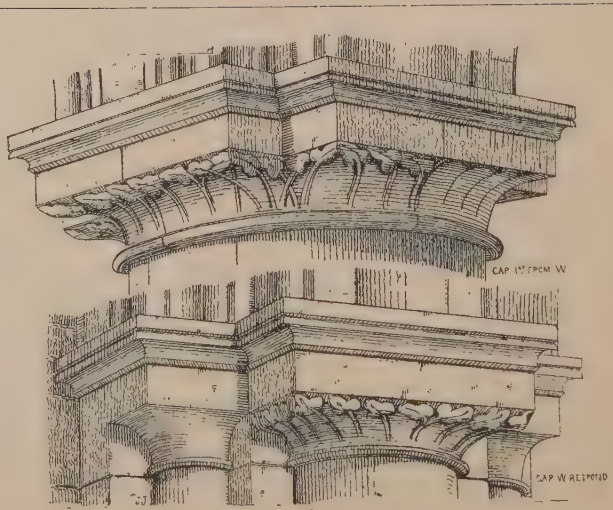
In the xiiith century the mouldings are frequently made up of rolls which are pointed or have a fillet like the keel of a boat. The rolls are deeply undercut so as to produce heavy shadow effects (Plate XXIV, Eye). In the xivth and xvth centuries, the moulds no longer consist of a series of rolls, but are made up more often of broad, shallow, undulating curves, sometimes spoken of as wave or casement mouldings (Plate XXIV, Churston Ferrers).

FLORIATED CAPITALS

The function of a capital is to provide a larger surface to pier or pillar from which the arch can spring. It is therefore given a flat top or platform which is called the 'abacus.' Below is the body or 'bell' of the capital, and at the junction of pillar and capital there is the 'neck' or 'collar.' The form and decoration of these several parts enable us to date any work with considerable accuracy.

The Norman capital is usually quite distinctive. One of the commonest and earliest forms is the cushion (Plate XXIII and Fig. 35), but towards the close of the xiith century, foliage was tentatively introduced (Fig 36). Particularly was the water-leaf popular in the earlier days. This is a broad, smooth leaf with a small volute which curls





[A. H. Kersey and J. Johnson, *del.*

FIG. 35. FIG. 36.

ST. LEONARD'S, STAMFORD.

inwards. Its period is from about 1165-1190. Another old form resembles a plantain leaf; a third, a fern; and

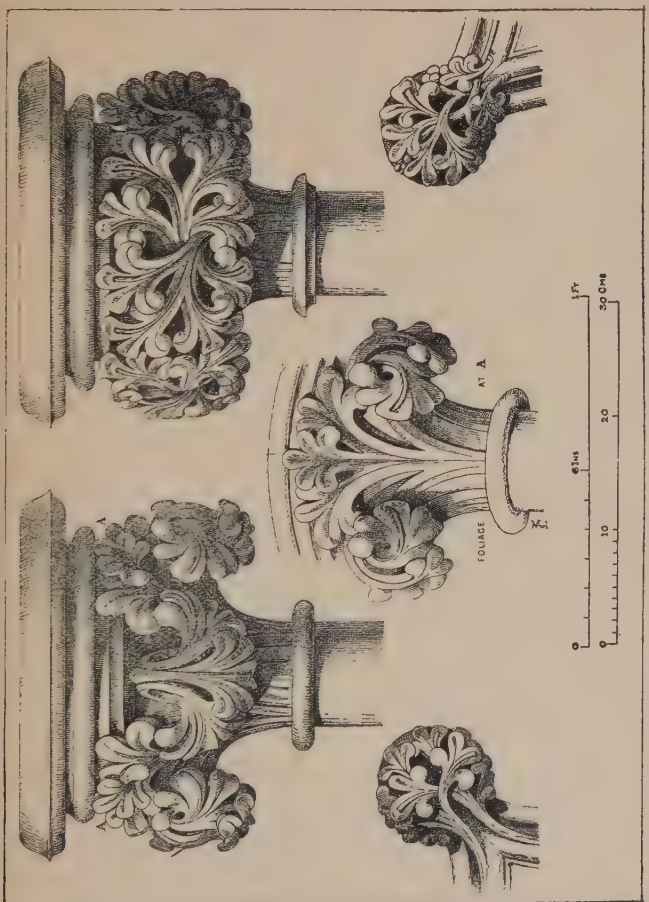


FIG. 37. EARLY ENGLISH FOLIATED CAPITALS, LINCOLN CATHEDRAL
J. K. Colling, *Del.*

a fourth is like a grape. These Norman floriated capitals are considered to be copies of Continental designs. The

real floriated capital, however, belongs to the early English Gothic and came into popularity during the first half of the XIIIth century. The foliage of that period is of the type known as conventional. that is, it is treated not as an imitation of a natural leaf but as a decoration reminiscent of the outlines of natural growth. The special characteristic of this

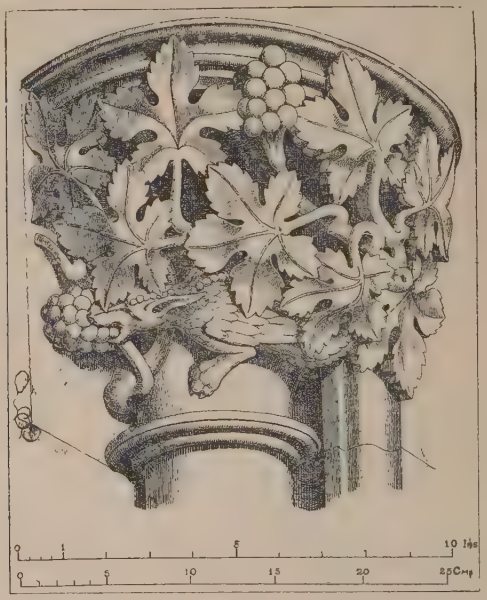


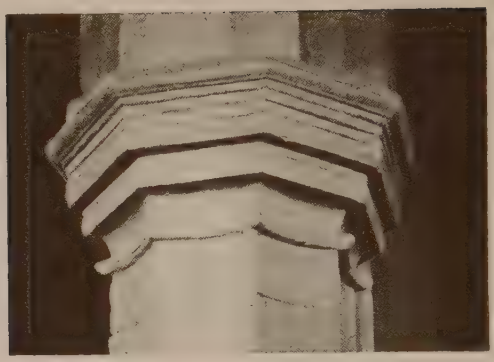
FIG. 38.

DECORATED FOLIATED CAPITAL, SOUTHWELL CHAPTERHOUSE.

capital is the treatment of the stalk, so that the foliage appears to be springing from the neck or the upper course of the pillar. There is a great variety of this form of leafage (Fig. 37 and Plate XXV, W. Walton), and in the richest examples the design culminates in a heavy mass of foliage which tumbles

1. Bridlington.
A Transitional Compound Pier.

2. West Walton.
An Early English Pier.



PERPENDICULAR CAPITALS.

1. GT. BRINGTON (NORTHANTS).
2. SWIMBRIDGE (DEVON).

over in exquisite profusion. However, the key to the style is found in the stalk. It is not usual to find this particular development in any other than the Early English period, and as soon as one is familiarised with this feature, it should not be difficult to recognise it wherever it occurs.

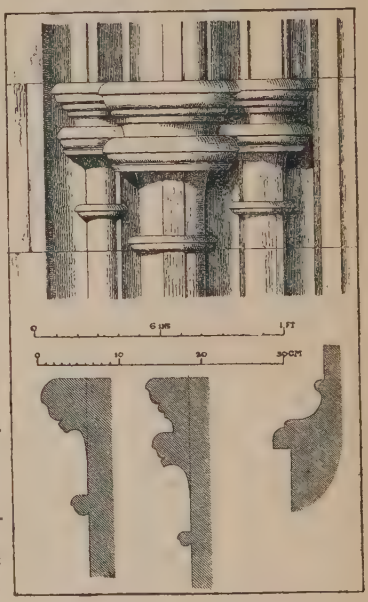
The conventional leafage of the capitals of the first half of the XIIIth century gave way to naturalistic foliage in which there is a more or less exact reproduction of the actual forms of leaves, flowers, and fruits (Fig. 38). The favourite themes were the vine and grapes, which have a sacramental symbolism ; the strawberry, which was a fruit said to be dedicated to the Blessed Virgin ; and the oak, from which it was assumed the true Cross was cut. The task, however, of differentiating the various plants is not always easy, and discussions have often arisen as to whether a leaf is that of an oak, or a fig, or whether it is an ivy or a vine. This mode was particularly frequent from 1280-1315. It must, however, be clearly understood that all forms overlap each other, and that any design having once been used may occur again at any subsequent time. The dates given are only those periods in which a particular mode was popularised, and to which, therefore, the majority of its examples probably belong.

Soon after the beginning of the XIVth century the craftsmen reverted to conventional foliage, but in a new spirit. They had learnt to carve with much greater freedom than their ancestors, and they had come to appreciate the beauty of nature. But instead of trying to reproduce nature, they treated the natural form as a basis for artistic design. This movement continued until arrested by the calamity of the Black Death. It survived afterwards only sporadically, save in the South-West of England, where the so-called Devonshire foliage is sufficiently standardised to have received its name. These Devonshire capitals belong to the Perpendicular period (Plate XXVI, Swimbridge). The design

in these cases gives the appearance of a flat wreath of leaves and flowers wrapped closely round the capitals.

MOULDED CAPITALS

So far we have dealt only with floriated capitals. Equally common in mediæval architecture is the moulded capital, which was favoured by the Cistercians who were an Order noted for their severity. This was a reaction from the sculptured imagery and artistic exuberance of the floriated style. Sobriety of detail was enforced in the Cistercian monasteries, and probably because of the ease with which moulded capitals could be turned the fashion soon spread. It also had artistic merit for it fits in well with the mouldings of pillar and pier and gives a logical finish to them.



[R. and J. A. Brandon, *del.*

FIG. 39.
ST. MARY'S CHURCH, BEVERLEY.
Moulded Capitals.

The different forms of moulded capitals can be roughly grouped into divisions of centuries :

XIIIth century work : XIIIth century moulded capitals are usually circular, and have a deep hollow cut beneath the abacus. This is

in harmony with the deep incisions in the arches of this period (Plates XXV, Bridlington, and XXVII, Ingoldmells).

XIV*th century work*: In this century the capitals are remarkably uniform. A typical example (Fig. 39), consists of five parts: (1) A scroll moulding immediately beneath the abacus having an ogee curve. (2) A small hollow dividing this first moulding from the one below it. (3) A second scroll moulding of varied form but often a repetition of the upper one. (4) The bell of the capital consisting of a long, shallow hollow. (5) A scroll or collar forming the neck. The plan of the capital is circular or octagonal according to the shape of the pillar.

XV*th and* XVI*th century work* (Fig. 40 and Plate XXVI, Great Brington). There is no uniformity of treatment in the capitals of the Perpendicular period, but one or two leading features may be mentioned. Firstly, an octagonal capital on a circular pillar may usually be assigned to these centuries. Secondly, the capital is less pretentious and not so tall, so that instead of two full scrolls, as in the XIVth century work, there is generally but a single one. Thirdly, the edge of the upper roll is often brought down to the neck as a straight chamfer.

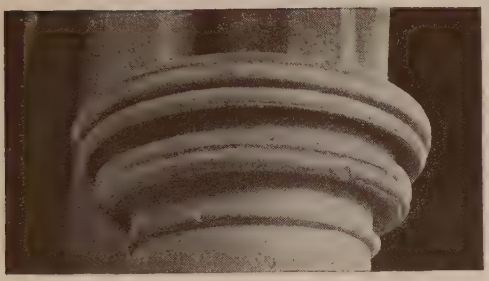
THE SHAFT

We have now to consider that part of the pier or pillar between the capital and the base which is called the shaft. The word appears a little inadequate in the case of the great Norman piers, but very appropriate in the case of the lighter Early English pillars. The Normans, here as elsewhere, favoured great masses of masonry, so that whether they built cylindrical shafts for their piers, or whether they bonded semicircular shafts to a rectangular core, the effect

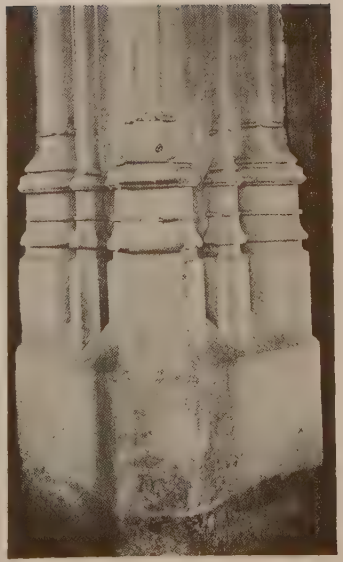
is always that of weight and impressiveness. There is no mistaking Norman work. Two distinct types exist. Firstly, there is the cylindrical pier (Plate XXII, Frieston), which may be either short or lofty. Short pillars are found mostly in the parish churches where the roof is low, for the Normans rarely built a clerestory save in their minster churches. The taller piers are in the great monastic buildings where the aisle windows on the cloister side of the nave are set high in order to clear the cloister roof. As little of this light would reach the nave unless the arcade was also lofty, the piers were usually built correspondingly high. Secondly, the Normans built compound piers (Plate XXII, Dunstable), that is, piers composed of a number of shafts. Each of these shafts is correlated to one of the orders of the arches that the pier carries, or supports one of the ribs of a vaulted roof. The problem of fitting in all the different ribs and orders was, indeed, often a very difficult one, and great ingenuity was exercised in relating these several parts.

The XIIIth century or first Gothic piers are composed of clustered shafts (Plate XXV), or a circular core round which are grouped relatively slender shafts which are often linked to the central column by bands called annulets (Plate XXV, West Walton). The number of these subsidiary shafts varies, but there are not less than four. Often they are of marble, while the circular core is of freestone. But the polish does not last well, and in process of time the surface disintegrates under the influence of damp. On a wet day the moisture in the air can percolate into freestone because of its porous nature, and is afterwards exuded without injury to the stone. The hard polished marble, though apparently impervious to wet, is damaged by the collecting of the moisture in large drops which can stream down the surface which it ultimately corrodes. With the disuse of marble there passed away the fashion of the detached shaft.

The XIVth century pier is composed of a cluster which,



1. Ingoldmells (Lincs.)
2. Skirbeck (Lincs.)

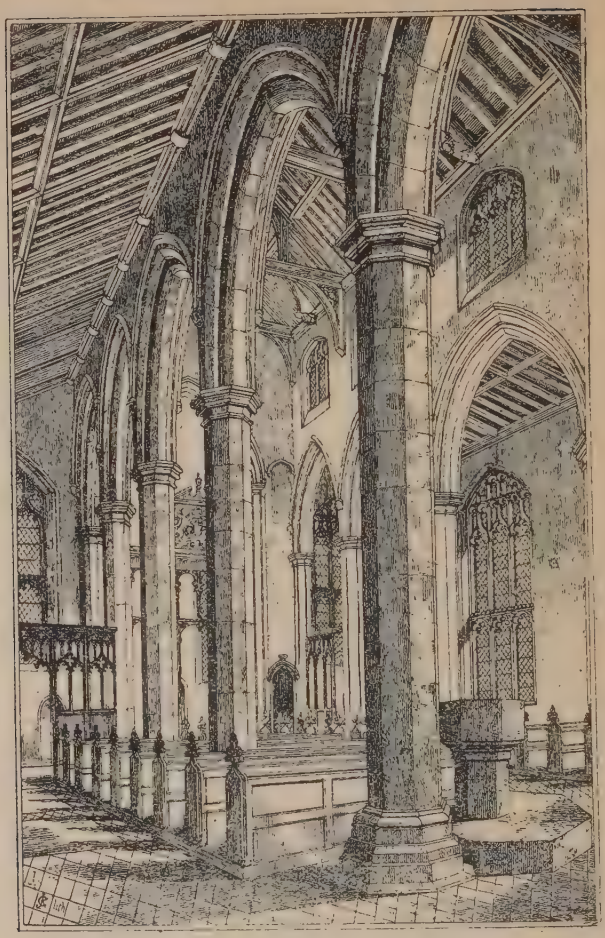


Types of Late Gothic Bases.

1. Holy Trinity, Hull. 2. Bloxham (Oxon.) 3. Tattershall (Lincs.)

like the Norman, is bonded into a central mass of masonry. But these ornate piers were reserved for the greater churches. The contemporary pillar of the purely parish church is more often a plain octagon (Fig. 40). Sometimes in a nave arcade the pillars are alternately cylindrical and octagonal. These later circular pillars must not be mistaken for Norman work. They can be distinguished usually by the more slender character, while the forms of base and capital will be contributory evidence of the later date.

The clustered pier, which came into use in the XIVth century for the nave arcades of the greater churches, and for the towers of the lesser churches, remained more or less standardised until the close of the Gothic period, but the less pretentious pillars of the nave arcades of parish churches continued to develop along varied lines. Strong localisms are exhibited in XVth century work. Thus in the South West of England the form of the pillar is very stereotyped. It consists of four shafts bonded to a central core. The shafts, however, are not set closely together as in the XIVth century examples, but are widely separated and between them is a wave moulding which is swelled out so as to give at first sight the impression that a pier is a cluster of eight shafts. This form is particularly frequent in Devonshire (Plates XXIV, XXVI and XL). Another very favourite composition, met with most frequently in East Anglia, is a cluster of four shafts round a central core, each shaft terminating with its own capital, the wave mouldings between the shafts being continuous with the wave mouldings of the arch. These piers frequently carry the roof principals which are supported on a single shaft, bonded above to the clerestory wall (Plate XXX, Lavenham). In other parts of England, particularly the Midlands and the North, the pillars of the nave arcades are simple octagonal shafts, sometimes cut with a concave surface. In some late Perpendicular work, and sometimes in Decorated, the capitals are omitted,



[R. and J. A. Brandon, *del.*

FIG. 40.

INTERIOR OF THE CHURCH OF WIGENHALL, ST. MARY MAGDALEN, NORFOLK.

and the orders of the arch are continuous with the shafts and mouldings of the pillars.

BASES AND PLINTHS

The structural object of a plinth is to give a strong foundation. It is the foot of the pillar, and by its spread it affords stability. The Normans did not develop this feature because it was unnecessary. Their massive piers covered a sufficient area, and all that was needed was something to give a neat finish. They contented themselves, therefore, with a short bevel or an insignificant and flattened roll standing on a square plinth not much thicker than a flagstone.

In the XIIIth century, the form of the base known as 'water-holding' held the field. It consists of a multiple roll cut from above (Plate XXVII, Skirbeck). It arose from the desire to get more play of light and shadow, but it had the disadvantage that it held the rain if it were an outdoor feature, and the dust if within the church. It was subject, therefore, on one side to excessive weathering, while on the other it defeated its own end by getting filled with dirt, the shadows being obliterated. This base stood upon a round plinth which tended to follow the outline of the pier.

In the XIVth century the base and plinth were built higher, and this led to decorative elaboration. A distinct harmony now developed between the base and the moulded capital, the roll mouldings, which have already been discussed in the section on capitals, recurring in the bases (Plate XXVIII) The same fondness for ogee curves and undulations is also observed. These forms gradually developed along lines of normal evolution so that there is no line of demarcation between the XIVth and XVth century bases. The later ones are still loftier, at length overtopping the pews, and the number of members is usually five. Where, however, there

is a single octagonal pillar, it usually happens that the base also is an undecorated octagon. In other cases, where a pier is compound, it was a frequent xvth century practice to provide a base for each shaft, clustering the whole mass together.

CHAPTER VIII

ROOFING OF CHURCHES

(A) TIMBER ROOFING

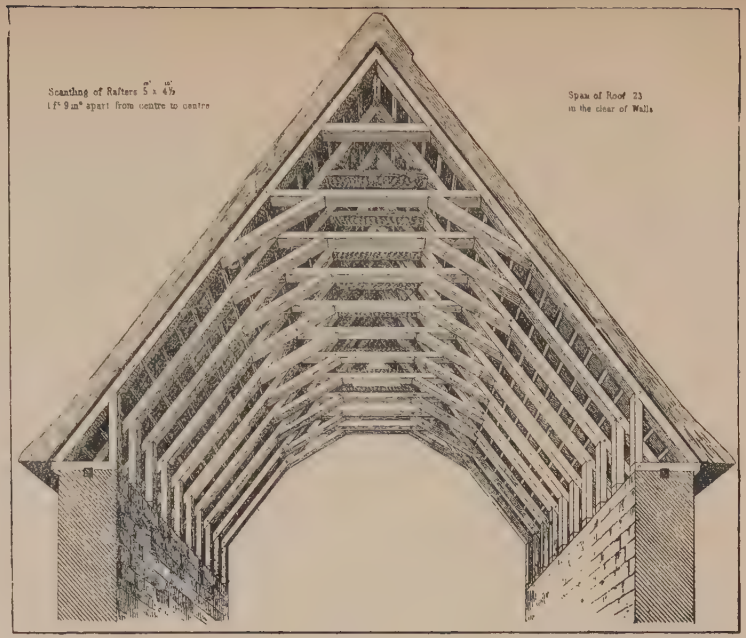
TIMBER is the universal roofing for parish churches, and stone vaulting is only seen in porches, towers, and chapels. If a church has a vaulted nave it is safe to assume that originally it was not parochial, but one of the greater churches served by monks and canons. Timber, of course, is a perishable material, though well-seasoned oak has a long life, and few churches to-day have timber roofs earlier than the XIVth century. Even many of these have been 'restored' so that it is difficult to distinguish the old work from the new. But few people take much notice of a church roof. It is inaccessible and often dark. In certain cases, such as the glorious panelled roofs of Somersetshire, or the wonderful hammer-beam roofs of East Anglia, with their angel figures, the roofs compel attention, but for the most part they are not observed, and a knowledge of their construction is uncommon. Yet the Brandon brothers say, "In this feature of architecture England may be pronounced unrivalled, for though other countries may equal or excel her in the magnitude and external beauty of their churches, there is scarcely a church on the Continent which can boast of such timber roofs as are to be met with in almost every county of our land." The truth of this will be realised when roofs are examined. And because of their inaccessibility and relative darkness, it is a good plan to take field glasses when

visiting a church so that the detail of these more remote features can be studied with ease.

Most of the wooden mediæval roofs are of oak. Five hundred years ago England rejoiced in great forests of oak, so that the material was cheap and accessible. It could be obtained in great lengths, and naturally bent timbers could be chosen for curved work. By a curious superstition the wood was cut only in winter, and during certain phases of the moon. We realize that the labour of felling the trees and of hauling the logs must have been excessive, when we consider the bad state of the roads at that time. How, for example, did they get very long beams of wood through the narrow streets and round the sharp corners of the old market towns? We may picture the teams of ten or twelve oxen slowly and laboriously dragging these great tree trunks; what a long tedious business it must have been! Francis Bond says that, when roofing Abingdon Abbey, the beams were brought from Wales, and the teams took seven weeks to drag them from Shrewsbury to Abingdon. Little wonder that water carriage was preferred and chosen whenever possible.

Though timber may be said to be the universal roofing for parish churches, it must be understood that this applies only to the roof frame. For the outside all sorts of material were used; slates in the south-west of England, stone tiles in Northamptonshire; thatch in the Broadlands of Norfolk. In the early xvth century lead became popular, for it made an easy and convenient covering for the low-pitched roofs of the Perpendicular style. It was for the sake of this lead that so many churches were destroyed after the Dissolution of the Monasteries. It should be noted that there was no iron work in a mediæval roof, and where iron bolts and tie rods are seen in old roofs to-day they are modern insertions. All timbers were pegged or mortised.

Though there appears to be almost a limitless variation



[R. and J. A. Brandon, *del.*

FIG. 41. STOWE BARDOLF CHURCH, NORFOLK. ROOF OVER NAVE.
A Collar Beam roof.

in the forms of timber roofs, it will be found that they can practically be placed in one of the following five classes :

(i) *The Simple Braced Collar Roof* (Fig. 41)

This is one of the primitive forms and was in use in the XIIIth century. A few examples have survived from that time though it must not be assumed that the presence of this type of roof is evidence of that ancient date for it persisted in the poorer churches for many centuries. This roof is readily understood and recognised even in its manifold variations. It consists of two rafters pinned together at the point where they meet, in the apex of the roof. To prevent them spreading outwards, they are tied together with a horizontal piece of wood called a collar beam. In order to stiffen this beam, that it may resist both tension and compression and prevent the roof either spreading out or bulging in, it is strengthened by two side pieces called collar braces. This fixes the top part. Lastly, to make the bottom part equally secure, the roof is held to the walls by a piece of wood generally embedded into the masonry called a wall plate. A short strut from wall plate to rafter anchors the whole concern and "makes assurance doubly sure."

FIG. 42.
ST. MARY'S, LEICESTER.
An Arched-braced Collar Beam Roof with Queen Posts.

(ii) *The Arch-Braced Collar Roof* (Fig. 42)

The simple braced collar roof is strong and effective,

BARKING (SUFFOLK).

AN ARCH-BRACED TIE BEAM ROOF WITH KING POST

1. LAVENHAM. An Arch-Braced Tie Beam Roof.
2. ADDLETHORPE (LINCOLN), S. PORCH. An Arch-Braced Collar Beam Roof.

WOOLPIT (SUFFOLK). DOUBLE HAMMERBEAM ROOF.

PLATE XXXII.

R. W. Billings, del.

NORMAN CRYPT IN DURHAM CATHEDRAL.

(GROINED VAULTING).

but it is not beautiful. The function of architecture is to modify an essential constructive feature so as to make it a thing of beauty. If the modification not only satisfies the æsthetic demands, but also increases the structural value of the building, then it is good architecture indeed. This is true of the arched braced collar roof. It adds beauty and it strengthens the structure. In principle it is a wooden arch placed beneath the collar beam which it supports in the same way that an arch often supports a flying buttress (Plate XXX). This type of roof came into general use in the XIVth century, and was particularly favoured in the south-west of England where it is boarded on its under surface, producing the well-known waggon or barrel ceiling.

(iii) *The Simple Tie-Beam Roof* (Fig. 43)

A tie-beam is one which spans the space from *wall to wall*, thereby differing essentially from the collar beam which

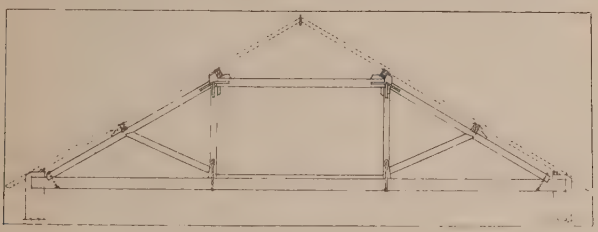


FIG. 43

QUEEN POST ROOF (TIE-BEAM).

only ties the rafters. The tie beam is an obvious way of preventing a roof from spreading, but it has certain disadvantages. If the walls are low, the tie-beam comes down too low and is obtrusive ; and if the roof is ceiled, air space is materially curtailed. In mediæval days there was the added difficulty of finding a tree trunk long enough to span

the whole width of a nave. Further, if it did span it, there was a strong probability that it would sag in the centre. At first they tried to get over this difficulty by the introduction of an upright pillar joining the middle of the tie-beam with the apex of the roof. It was called a king-post (Fig. 44). It is difficult to understand what such a post can do. Does it support the roof? If so it must take the tie beam sag more. Does it hold up the tie-beam? In that case it is a

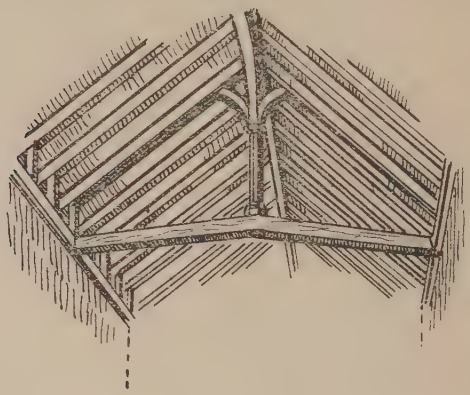


FIG. 44.
SWARDESTON.
Simple King-post Tie-beam Roof.

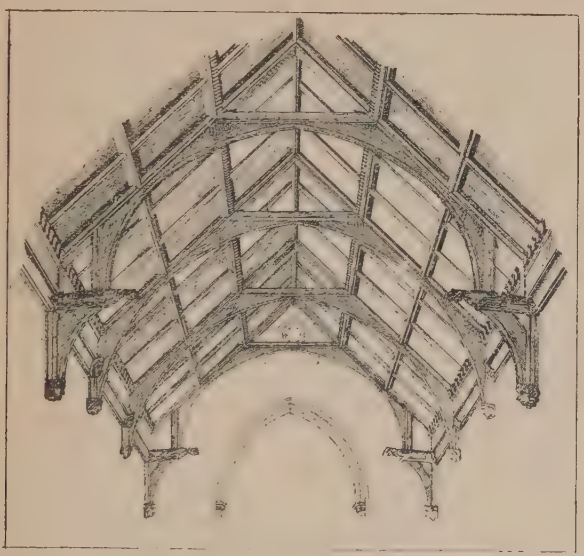
source of weakness to the roof instead of strength. So defective is it, indeed, from a constructional point of view, that in many churches it has been found advisable to remove it.

Another way in which the mediæval builders tried to strengthen the tie-beam roof was by the introduction of queen posts (Fig. 43). These are beams of wood connecting rafter and tie beam at each side instead of in the middle. But this arrangement was not satisfactory as it sometimes

made the sagging worse. A queen post roof is quite a sound job for a narrow span, but it is not a strong roof if the span is broad. It is, therefore, only met with in the smaller churches.

(iv) *The Arch Braced Tie-Beam Roof*
(Plates XXIX and XXX)

The problem of preventing the sag in a tie-beam was at last solved by the arch brace. which effected for the tie-beam



[R. and J. A. Brandon, *del.*

FIG. 45. ROOF OVER NAVE,
LITTLE WELNETHAM CHURCH, SUFFOLK.
Single Hammer Beam.

exactly what it did for the collar beam. It strengthened the structure and beautified the roof, and when the arch

braces were placed under the rafters in addition to the tie-beam, the effect was still more satisfactory. The lower arches often spring from wall-posts which rest upon corbel stones. In other cases the arch springs from a shaft continued up from one of the piers of the arcade (Plate XXX, Lavenham). Great variety, and therefore much additional beauty, were made possible by the evolution of this type of roof.

(v) *The Hammer-Beam Roof* (Plate XXXI and Figs. 45 and 46)

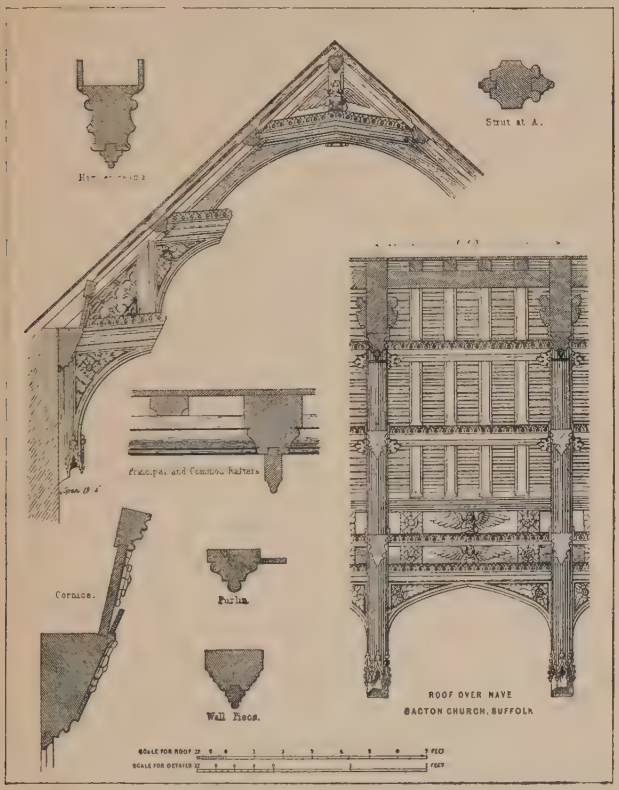
Cut away the middle of the tie in an arched braced tie-beam roof, and we have the hammer beam roof. The hammer beam is, therefore, the logical development of the arched tie-beam. It was a xvth century feature and its presence is generally a ready criterion of date. Often the hammer-beams are ornamented with figures of angels with outstretched wings, thereby making one of the most beautiful roofs imaginable (Plate XXXI). In the presence of these glorious structures it is difficult to understand why the xvth century Gothic work is so often condemned as degenerate.

(B) VAULTED ROOFS

The English have ever been a race of carpenters and shipwrights, and it has been suggested that this is the reason for our national fondness for timber roofing. But timber is a perishable substance and particularly liable to fire. In mediæval days, protection against fire was the first consideration, and stone vaulting was demanded by the greater churches if only on account of the precious relics that they contained.

(1) *Barrel Vaults*

The oldest vaulting utilised by the Romans was a simple



[R. and J. A. Brandon, *del.*

FIG. 46.

ROOF OVER NAVE, BACTON CHURCH, SUFFOLK.

tunnel such as may be seen to-day along any railway, and this was the form of vaulting first used in churches. But the barrel or tunnel vault had an obvious disadvantage. It required for its support a continuous solid wall. Every place where the wall was fenestrated was a point of weakness. Windows therefore had to be small and infrequent. There was also limitation in span and height. The aisles could be covered with a half-vault, but the span of the nave had to be the diameter of the arch-circle.

(2) *Groined Vaults*

Then followed the groined vault, which was made by the intersection of two tunnels or half cylinders (Fig. 47). This is seen most frequently in crypts (Plate XXXII). This vault exerted its main thrusts at the four corners, being carried thereto by the lines of intersection. The walls could then contain windows without weakening the structure. The method of building these vaults was first to make an exact wooden model, on the top of which was laid a thick layer of mortar, packed with rough pieces of stone. When the mortar had set, the timber frame was removed, and the mixture of rubble and mortar was found to have formed a sort of concrete, the rough surface of which might be subsequently dressed with plaster and painted. These vaults are usually early XIIth century workmanship.

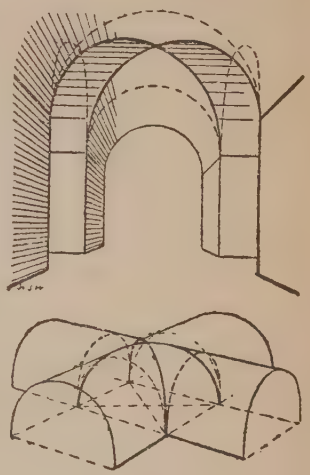


FIG. 47.
GROINED OR INTERSECTING VAULT.

(3) *Cross-ribbed Vaults* (Plate XXXIII, Blythe Abbey)

The next step was the discovery that it was easier to build such a vault first as a skeleton. So for the sharp edges of the groins, that is, the junction lines between the cells or divisions of the vault, were substituted ribs of stone built over light wooden frames in the manner of arches. The spaces between the ribs were then filled up with masonry.

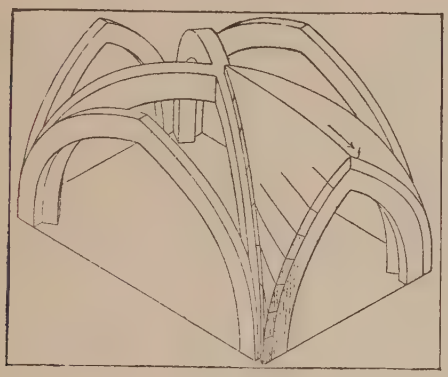


Fig. 48.

Mode of Construction of Ribbed Vault.

This form of vault, shown in Fig. 48, had the advantage of elasticity. The plain groined vault, if weakened, collapsed. The ribbed vault could stand fracture in one part, or the sinking of the foundation in another part, without damage to the whole. Ribbed vaulting first developed in English churches in the XIIth century, and continued till the close of the Gothic period, and the names given to the different kinds of vaulting are based upon the treatment of these ribs.

These early vaults were square on plan. This was

inevitable with round arches. By stilting a round arch (Fig. 29), it could be raised, but this added another constructional problem in vaulting, so that it was not until the advent of the pointed arch that development became feasible. Consequently the early churches had only the aisles vaulted, because the span was narrow. None of the great vaults which to-day cover the naves and presbyteries of our cathedral and minster churches were possible in Norman times.

The pointed arch is rightly termed the key-note of Gothic architecture. It permitted the vaulting to be supported by pier and buttress, so that a Gothic building came to resemble a ship. Anyone who has visited a shipyard and seen vessels being built knows that the basis of construction is a skeleton consisting of a keel and ribs. The plating of the sides is for the purpose of keeping the ship watertight ; it does not hold the ship together. So the vaulted roof of a great church has its central keel (Fig. 49), from which spring the ribs which stand on piers supported by an abutment system. The intermediate wall became of value chiefly for decorative purposes and was largely replaced by glass, until at last a Gothic building was almost a glass house (Plate XX, Lavenham). It is true that parish churches never vaulted their naves, but the system of construction and the development of the Gothic spirit were the same.

(3) *Tierceron Vaults* (Fig. 49)

We have observed that in vaulting there is a ridge, which may be compared to the keel of a ship, running the length of the roof apex. It was in Lincoln that the practice first arose of building additional ribs to connect this ridge with the capitals of the supporting arcade. These ribs are called *Tiercerons*. The tierceron ribs do not join the central bosses of the vault cells—that is a function reserved for the essential cross ribs. They are simply intermediate ribs

[E. Tarver, *del.*

FIG. 49.

WESTMINSTER ABBEY.
(West Walk of Cloisters, looking North).

which have more decorative than constructional value. Their addition, however, facilitated the filling in of the cells, since the more numerous the ribs the lighter could be the roof material. They also contributed to the solution of the problem of vaulting a polygonal space as in chapter houses.

(4) *Lierne Vaults* (Plate XXXIII)

A lierne is a tie rib. It never joins the boss as do the ridge ribs and cross ribs, neither does it spring from a capital as does the tierceron. It connects one rib with another, so that its function is almost wholly decorative. The introduction of the lierne vaulting enabled the builder to weave geometric patterns into his roof and add, therefore, to its beauty.

(5) *Fan Vaults* (Plate XXXIV)

The development of fan vaulting is justly regarded as one of the highest achievements of mediæval art. In many cases this form of vaulting is easily recognised, but there are enough border-line cases to make a definition desirable. That given by F. E. Howard[1] may be quoted: "A fan vault is a vault with many ribs, spaced at equal angles with one another, the alternate ribs being equal in curvature."

Fan vaulting is particularly a xvth century feature. Its first appearance is said to be *circa* 1349, the date assigned to the monument erected to Despencer in the Abbey church of Tewkesbury. By the first half of the xvth century, the fan vault had become more general. It continued in popularity for the first thirty years of the sixteenth century. The climax of this form of construction is by common consent found in the glorious Henry VII chapel at Westminster, where it is combined with the pendant system first used in

[1] 'Archæological Journal,' 1911.

conjunction with the lierne vault in the Divinity School at Oxford.

F. E. Howard notes three classes of fan vaults. The first is planned in square bays, the general surface of the vault taking the form of conoids butting up against a flat ceiling or spandrel. In this case the spandrel is built with radiating joints, and transmits the thrust of the ribbed conoids from one to the other, acting as a keystone. The second class of fan vaults includes those in which the cenoids partly intersect, but still leave a small central spandrel. In the third the cenoids completely intersect and have no central spandrels.

CHAPTER IX

CHURCH TOWERS

THE practice of adorning a church with a tower is a very ancient one. The greater Gothic churches favoured groups of towers or a central one, but in the parish churches in England western towers are the rule, nave and tower being connected by an arch the height of which in later Gothic work may be that of the nave roof. In most instances the remaining three walls of the tower are outside the church (Figs. 8 and 9), but there are quite a number of cases where the aisles extend alongside the tower. Less commonly the tower stands at the end of one aisle. Where this occurs the explanation may be that the aisle in question is the original nave. Other unusual positions of a tower may be occasioned by the exigences of the site.

At least four functions were served by church towers. An early use was that of defence. In his *Military Architecture of England*, Prof. Hamilton Thompson says : " There are a certain number of churches, in districts exposed to constant warfare, the architecture of which, if not exactly military, was yet possibly constructed with a view to defence. The massive structure of some XIIth century towers, like Melsonby in North Yorkshire, is probably due to the idea that they could be converted into strongholds in case of a raid from the Scottish border. In the XIVth and XVth centuries, when Scotland was dreaded as a constant foe, the habit of giving additional security to the church towers in this district was common. Some otherwise simple church

towers, as at Bolton-on-Swale and Danby Wiske in North Yorkshire, have their lowest stage vaulted, probably to minimise the danger of fire. The doorway of the tower-stair at Bedale was defended by a portcullis, and there are a fireplace and garde-robe upon the first floor. At Spennithorne, in the same neighbourhood, the battlements of the tower borrowed an ornament from military architecture, and are crowned with figures of 'defenders'." The tower of Rugby Parish Church was once used as a kind of stronghold for the inhabitants of the town. In Cumberland there were several fortified churches, as at Salkeld, where the only door which opens into the nave is iron plated and is fastened with strong iron bars. No doubt the XIVth and XVth century custom of ornamenting a church tower with an embattled parapet is an æsthetic survival of the days when archers stood behind the merlons of a castle wall to repel attack.

Secondly, church towers were used as beacons. This does not imply that they were built for this purpose, but many instances are on record of bequests to churches for the upkeep of towers from those whose lives were saved by the timely note of the bells guiding them safely amid the dangers of road or river, sea or quag. In other cases lanterns were lit on church towers. Churches often occupy high ground along our coasts, and these, before the days of lighthouses, were sometimes provided with lights, and must have been instrumental in saving the lives of mariners.

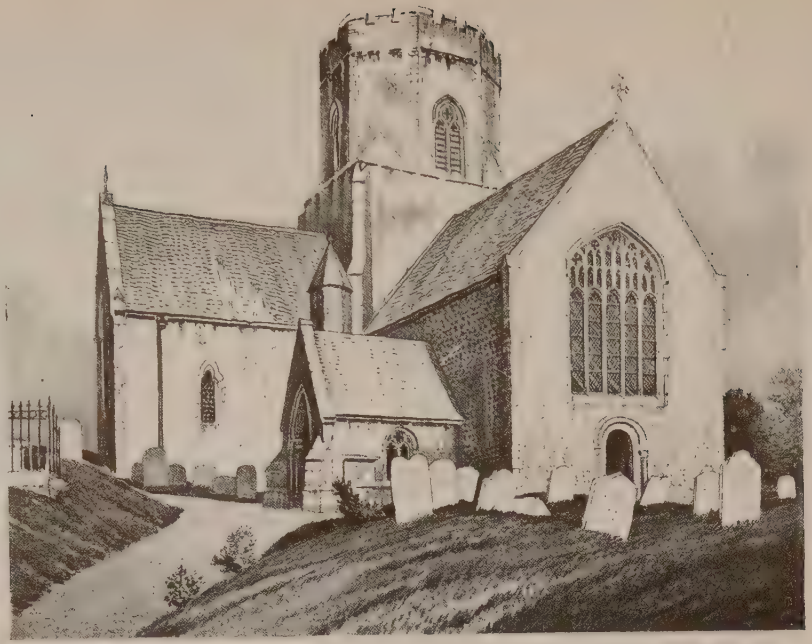
Thirdly, the towers were for the housing of the bells. Abroad the ring of bells occupied a detached tower or campanile. In England there are cases of detached belfries, but, generally, the reason has been some superstitious belief, as at East Bergholt, Suffolk ; or where the site was inopportune, either by reason of the poor foundation, as at West Walton (Norfolk), or because there was no room for the tower, as at St. Gunwalloe (Cornwall). Bond suggests that the Continental builders favoured the detached cam-

panile because their towers were so heavy that if bonded in to the main part of the building they would bring it down.

In this country the Normans, who were our first great builders, were very fond of central towers. Unfortunately, many of them have fallen, and many, too, were demolished in the Perpendicular period when so much rebuilding of churches was undertaken. Structurally the Norman central tower was weak. It was the natural outcome of the cruciform church (Plate XXXV). But it offered many practical difficulties. For its support it had to stand on four isolated piers, just as the Eiffel tower in Paris stands on four legs. But the Eiffel tower gains rigidity by being splayed and arched. Norman central tower piers had to be vertical, though they were buttressed by the transepts, nave and choir. But the junction of the tower with the other parts of the church was often a source of weakness, not of strength. Where the tower was heavy, it tore away from the building, and, sinking in the ground, collapsed. Chichester central tower telescoped in 1861. At Gloucester the south-west tower fell between 1164 and 1175. The central tower of Ely collapsed in 1321. Many such examples could be cited. Bond says that the dangers of the central tower were such that they were erected by the "cautious," only sufficiently high to provide a ring of windows; by the "bolder" a more imposing bulk and height were attempted, as at St. Albans; the "venturesome" risked a small wooden spire; while the "rash," threw caution to the winds and crowned their towers with a stone spire!

NORMAN TOWERS

Many ancient round towers, a great number of which are Norman, survive in East Anglia. There are 130 of these in Norfolk and 40 in Suffolk. The naves to which they were at one time attached have for the most part disappeared



PACKINGHAM (SUFFOLK).

A. E. Newcombe, *del.*

1. Cullompton (Devon).
2. Blackmore (Essex).

long ago, with the result that there is a marked incongruity between the circular tower and the later church. With the object of bringing the two somewhat into line, the mediæval builders either added an embattled parapet to the tower (Fig 14) or built an octagonal belfry stage. This feature is seen no where else in England (Plate XX).

Elsewhere, as already noted, the Norman builders favoured a central square tower, of which a number of examples have survived. These towers are massive but not lofty, and their adornment with the characteristic round arch, either in belfry window or arcading, quickly establishes the style (Fig. 3). The battlemented parapets which often adorn these towers are later additions. The common Norman way was to cover their towers with a pyramidal capital or a short spire with four or eight sides. Another method was the *saddle-back*, whereby the tower had a ridge roof so that two sides presented gable ends, a form favoured more on the Continent than in England.

THE TOWERS OF THE FIRST GOTHIC STYLE

This period was not characterised by great tower building. At first the towers resembled those built by the Normans both in mass and in detail, but soon there developed the practice of employing a surface arcading of pointed arches as a system of decoration. This is met with particularly in the Fen district: Walsoken, Tilney (All Saints), West Walton, and Kings Lynn (St. Margaret's), are fine examples. Attention was also paid to the belfry windows so that these became a dominant feature in the general design. At first used singly, later, they were grouped in pairs, and, later still, received peculiar enrichment. In this they followed the development already described in the chapter on windows.

Another feature was the gradual development of the buttresses. Saxon and early Norman towers had no but-

tresses, though they might be built with pilaster strips, nor did the buttress receive much attention in the Early English period. But as the Gothic style developed the buttress became a decorative as well as a structural feature. At first, set against the faces of the tower the practice arose of building bold angle buttresses which gave a spreading foot and a satisfactory expression of solidity and strength. This was very necessary as towers increased in height.

"Nothing," says Francis Bond,[1] "reassures so much as *appearance* of stability. And that appearance is given by the pyramidal form. So sometimes the walls of the tower *batter*, that is, slope backwards, as in the lowest stage of many church towers in Herefordshire. In Gothic design each stage is usually vertical, but each stage may be drawn back a little from the stage below. . . . . An absolutely vertical tower appears to the faulty lenses of our eyes actually to overhang; just as do Flamborough cliffs, seen from a boat below. The Greeks, aware of this, sloped backward the columns of their temples."

PERPENDICULAR TOWERS

From the time of the Black Death (1349) to the time of the Confiscation of the Chantry Endowments (1535) was the great age of tower building. In these years over 2,300 towers were either built from the ground or raised in height, in addition to those attached to the 1,100 or more churches built during these centuries. The vast majority of these towers were placed at the west end of the nave, and in their general design they were extraordinarily uniform. For the most part they are square on plan, and are divided in elevation into stages by string courses. In the lower stage is placed the west doorway. In the second stage, and just above the doorway label, is the west window. If

[1] 'Gothic Architecture in England.'

the tower consists of three stages, the third is usually pierced by belfry windows. If of four or more stages, the windows occupy the uppermost stage, the intermediate ones being plain, or pierced by small openings (Plate XXXVI, Collumpton). Above the uppermost string course the tower is often finished by an embattled parapet, plain or enriched (Plate XXXVII). The treatment of the skyline was perhaps the most important feature of all. The embattled coronal is peculiarly English, and is hardly met with on the Continent. This affords yet another reason for speaking of the Perpendicular style as Late English Gothic.

The peculiarities of local development in tower building require to be noticed. In Cornwall and Devon the towers are in keeping with the bleak moorland scenery. They are often lofty, perhaps reaching to a height of 100 feet or more, and the absence of a clerestoried nave increases the impression of great height. In design they are very plain, and yet not without a quality of dignity. The marked taper, the economy in string course, the smallness of the belfry windows, and the whole granite expression make a very definite impact (Plate VII and Fig. 53).

The method of placing the staircase with its projecting turrets in the centre of one of the tower sides is peculiar to Devonshire ; the effect is not so happy as at the angles.

The finest towers in England are to be found in Somerset (Plate XXXVII). These towers have been variously classified, but all the groups which can be worked out are but sub-divisions of one family which presents many common features, and may be summarised as follows :

(a) *Buttresses*

Diagonal buttresses are uncommon. The usual form is a facing buttress, two at each angle, terminating in a pinnacle at some point in the top stage of the tower below the parapet. The pinnacle is characteristically set upon a long narrow

shaft placed diagonally upon the buttress. This diagonal setting of the pilaster strips, shafts, and pinnacles, not only above buttresses but also generally on the faces of the towers, is a strongly marked Somerset characteristic.

(b) *The Coronal*

The parapets are elaborated. In the finest examples they are enriched with geometric or other patterned tracery. The pinnacles are tall and enriched. A local peculiarity is their employment in clusters at the corners. The usual form of this is a large central pinnacle with four smaller ones around it. Sometimes undue emphasis is placed upon the coronal with unsatisfactory effect as at Dundry and Yeovil.

(c) *Ornament*

Owing to the excellence of the local stone, the amount of carved work is very large. Canopied niches abound often with miniature vaulting and with crockets and pinnacles. The bases are supported mainly by brackets carved with foliage or the figures of angels. Grotesques are common at parapet angles and along the string courses. Panelling is frequent.

(d) *Belfry Windows*

It is in the characteristic treatment of belfry windows that most writers have sought for the classification of the Somerset towers. Mr. Robert Brereton[1] groups them as follows :

(i) The Cheddar Valley Type characterised by triple windows in each face of the belfry stage, but not in the stage below. The centre window is usually open while the lateral ones are filled with stone tracery. The tower

[1] 'Archæological Journal', 1905.

SOMERSET TOWERS.

1 ST. STEPHEN'S, BRISTOL.

2. N. PETHERTON, (SOMERSET).

KENTISH TOWERS.

top is generally horizontal and not embattled. (14 examples).

(ii) The Taunton Dean Type with double windows in the belfry stage and not in the stage below. The parapets are embattled and pierced with geometric tracery. The towers are enriched with decorated panelling and string courses (21 examples).

(iii) The Bristol and Channel District Type. This group has single belfry windows in each face wholly contained in the belfry stage. The towers are smaller and plainer than the other types (21 examples).

(iv) In the fourth group he places all the towers characterised by uniformity of treatment above the nave roof :

(a) *The Wrington type*, in which the whole height of the tower above the body of the church consists of one tall stage having double or triple belfry windows. (4 examples).

(b) *The Chewton Mendip type.* In this group there are two or more stages above the body of the church with double or triple windows of uniform design in each stage. (6 examples).

(c) *The Shepton Beauchamp type*, in which the height above the body of the church is partly divided into two stages by a string course which is interrupted in each face by tall single windows partly above and partly below the string course. (5 examples).

THE KENTISH TOWER (Plate XXXVIII)

The towers of Kent are famous though they cannot vie with those of Somerset. Some are low, consisting of not more than two or three stages, nor are they enriched

with the ornate coronals, string course, and windows that are so striking a feature of the Somerset towers. The chief distinction of the Kentish variety is the presence of a turret, rising from one of the angles above the parapet, and often terminated by a spirelet. The best position for the turret was an inner angle where aisle and tower joined. The design is varied. Some are square on plan, most are octagonal Others are square at the base, and change to an octagon higher up. Others, again, have circular bases, becoming octagonal in the upper stages. Many have sets-off all the way up.

THE EAST ANGLIA TOWERS (Plates V and XX)

The general character of these towers is occasioned by their building material and the peculiar combination of flint and freestone in the flushwork designs (see Plate V, XX.).

The towers are lofty, comprising as a rule at least four, and sometimes five, stages. A local peculiarity is observed in the stage below the bell-chamber, where are to be found square openings filled with tracery. Various theories have been offered as to the purpose of these openings. At first it was thought they were intended as vents for sound, and the name *sound-hole* has clung to them. Modern views, however, discount this suggestion in favour of the idea that they were for ventilation. The tower buttresses are placed very frequently in a diagonal position at the angles, and are characterised by a particular boldness of projection. Stair turrets, which rise above the parapet, and form so distinctive a feature in the towers of other districts, are not common. The embattled parapets are often stepped.

CHAPTER X

SPIRES

IT has been truly said that of all the members of a Gothic building, the spire is the most original, the most religious, and the least essential. Its effectiveness is generally admitted, and poets have singled it out as a feature of dominant beauty. But though so often declared to be the chief concession in Gothic architecture to religious symbolism, it is not now credited with any symbolic origin. Modern scholarship assumes the spire to be a simple development of the gable roof with which the early builders capped their towers. The pitch of this roof was gradually steepened so that it could the better carry off the snow and rain so prevalent in northern lands, until devotional art transformed this utilitarian idea into the beautiful and elongated spire. that has become so distinctive and suggestive a feature of our Christian churches.

One may well marvel at the skill and daring of the mediæval builders of spires. No wonder that when a spire was finished there was great rejoicing. "This year (1515)," writes an old chronicler of Louth, "the weathercock was set upon the broach, there being present the parish priest, with many of his brother priests, hallowing the said weathercock and the stone that it stands on. And the priests sang Te Deum Laudamus with organs, and then the churchwardens rang all the bells, and caused all the people there being to have bread and ale. And all for the love of God Our Lady, and All Saints."

There are two main classes of spire met with in England :

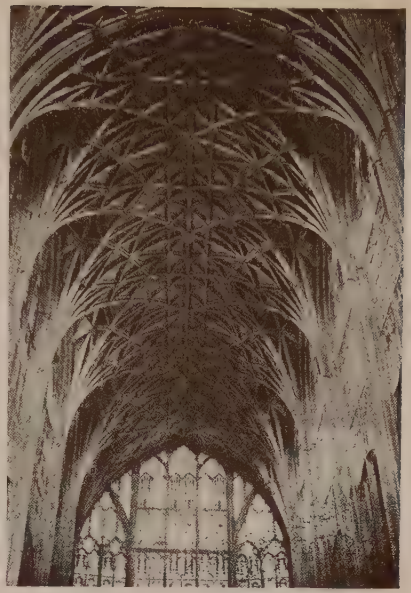
those of wood and those of stone. Many of the former have perished, but timber spires are still met with in large numbers in the southern and south-eastern counties. The most elaborate are to be found in South Essex (Plate XXXVI). In the majority of cases the wooden belfries are carried on substantial tie-beams, and in other cases the towers and spires are supported on massive framing rising from the floor level.

In Sussex (Fig. 52), there are some forty examples of which the best are: Alfriston, Billinghurst, Bosham, Horsham, and Tarring. Middlesex, doubtless, contained at one time many timber belfries which must have been destroyed by the merciless spreading tentacles of London. For Middlesex was always well wooded, and, in those districts which were not accessible by water, it was the fashion to erect timber towers and belfries similar to those of the neighbouring counties. Some have survived, notably Cowley, Ickenham, Kingsbury, and Northolt. The counties of Kent, Surrey, Hampshire, and Berkshire, also exhibit many examples of timber work.

Stone spires are met with wherever there are good quarries of suitable material. It is often stated that they are most frequent in flat country, and the suggestion has several times been made that the builders were conscious of the disparity between the works of man and the grandeur of nature. In all probability stone spires are less frequently met with in mountainous districts, because in such localities the inhabitants are usually poor. In the English Lakeland, where spires are infrequent, the churches themselves are unpretentious.

There seems to be some confusion about the use of the word 'steeple.' A steeple may conveniently be considered to be the whole combination of tower and spire. For a spire is simply an ornamental finish to a tower, especially if the tower be already enriched with pinnacles. In Somerset, in some of the finest towers, the original design

1. Cross-ribbed Vaulting.
Blythe Abbey Nave.



2. Lierne Vaulting.
Gloucester Choir..

WILCOTE CHAPEL,
NORTH LEIGH (OXON.)

FAN VAULTING,
SOUTH CHAPEL, CULLOMPTON (DEVON).

1. Easton Maudit,
(Northants).

A Parapetted Spire with
Flying Buttresses.

2. St. Nicholas,
(Newcastle).

C. Wickes, *del.*

St. John Baptist, Ashton (Devon).
Showing a Characteristic Wagon Roof and Devonshire Type of Piers.

was a steeple, but when the tower was completed, the effect was regarded as sufficiently satisfactory, and the spire was not built. This happened at Shepton Mallet and at St. Martin's, Stamford. Thus Francis Bond notes that in the XIIIth and XIVth centuries almost every tower appeared to have been designed for a spire, but that the XVth century towers needed no spire, so complete and satisfactory was their design.[1] Where a spire was added to a pinnacled tower, a very effective liaison between the two was produced by the use of miniature flying buttresses from pinnacle to spire (Plate XXXIX). Beautiful examples of this are to be seen at Kings Sutton (Northamptonshire), and Whittlesea, St. Mary (Cambridgeshire). Less satisfactory are the steeples of Thaxted (Essex), Helpringham and Billingborough (Lincolnshire). It may be noted that, by a logical process, the development of this feature ultimately crushed the spire itself out of existence as at St. Nicholas', Newcastle (Plate XXXIX).

Moreover the spire did not fit in well with the flattened roof of the XVth century, and if the spire has really been the development of the high pitched roof, this feeling of incongruity is justified. The embattled square tower with its pinnacled coronal is in perfect harmony with a XVth century nave, and when the latter also has been enriched with a parapet and pinnacles, the unity of the building is very distinctly preserved.[2] I have counted only 200 stone spires built in England during the period of late English Gothic, whereas the number of towers built was over 2,300.

The usual finial of a steeple is the weather-vane. It appears curious at first sight that the Cross was not chosen as the natural emblem to raise aloft, but the familiar cock had its symbolic meaning, for it was the emblem of watchfulness. In some cases the figures are the emblems of saints, for

[1] "Gothic Architecture in England," p. 610.
[2] For example Yorks., Tickhill,

example, the key of St. Peter, as at Cornhill, and the grid-iron on which St. Lawrence was roasted, as at Bishop-stone.

An old custom was to place in the Cross or capstone some relic which would serve as a protection to the building. Thus in 1315, a new cross, well gilt, was set on the top of the spire of Old St. Paul's, London, with great and solemn procession, by Gilbert de Segrave, Bishop of London, and relics of saints were placed in it, "in order that the omnipotent God and the glorious merits of His saints. whose relics are contained within the pommel of the cross, might deign to protect it from danger of storms."

The spire is essentially a Gothic ornament though it was not unknown to the Normans. The first spires were built with overhanging eaves in the manner of the timber roofs, and in order to effect the transition from the square plan of the tower to the usual octagonal form of the spire, two methods were adopted. One of these

[R. and J. A. Brandon, *del.*
FIG. 50.
BRAMPTON CHURCH, NORTHAMPTONSHIRE.
A Broach Spire.

is shown in the picture of Horsted Keynes (Fig. 52). Here the two are brought into union by a slope, the diagonal sides narrowing to a point at the four corners of the base. A second plan was to fill in the corners with half pyramids (Figs. 50 and 51). This is known as the broach spire, a form peculiar to Engand, and dating from the late XIIIth century.

In the Decorated period came the parapeted spire (Frontispiece and Plate XXXIX). The reason for the conversion of the broach spire is well known. The broach spire was found very difficult to keep in repair because of its inaccessibility. Ladders were useless as no firm hold could be obtained and scaffolding had to be erected. The cost in time and labour might be quite disproportionate to the amount of work that needed to be done upon the spire. With the provision of a parapet there was afforded an easy and safe approach to the top of the tower, and after that only a relatively short scaffold stage would be required. The gain from the builders point of view was great, while the architect utilised the parapet as a fresh ground for decorative treatment.

The pitch of the sides of the spire in relation to the tower is also an important point in reference to stability, and after many experiments, an angle of about 85 degrees came to be considered the best. Again the earlier spires were heavy. The top courses of Louth spire are only five inches thick, whereas many of the older spires are over a foot thick at their apices.

The question of wind pressure is another problem which faces the spire builder. It might be thought that if the sides of a spire were perforated to allow the wind to pass through it, the safer it would be. But this is not so, for openings in a spire give the wind a better grip. Some openings, however, are necessary because the stone requires ventilation, just as timber does, and this is a practical reason for inserting spire

[W. H. Bidlake, *del.*

FIG. 51.

FRAMPTON CHURCH, LINCOLNSHIRE.
A Broach Spire.

lights, apart from their decorative effect. They tend, too, to correct the optical illusion by which an absolutely straight line sometimes appears to be slightly concave. On this account many spires are built with a convex outline, sometimes exaggerated unduly, producing a very ugly effect.

The xvth century was decidedly a period of architectural refinement, but in no feature is this more noticeable than in

[J. H. Nibbs, *del.*

FIG. 52.

HORSTED KEYNES CHURCH, SUSSEX.

the spire. One might suggest that having once decided to adorn a church with this "special crown and characteristic of Christian architecture," the mediæval builders set out upon a deliberate path of constructive ecstasy. Thus

there arose in the early days of spire building the correction of the outline by entasis. But the later builders were not content with this. The edges of an octagonal spire are obliterated when viewed from any distance and the effect of roundness instead of angularity is produced. Many spires were, therefore, built with their edges emphasised by a slender roll, and later still, during the XIVth century, the ball-flower ornament was freely used upon the edges. Then after the XIVth century the crocket was a frequent ornament, while at the same time it afforded a means by which a steeple-jack might climb the spire. Whether this form of decoration was used originally with a utilitarian purpose is doubtful. Francis Bond states that crockets were so designed in the case of Rushden (Northants), and that to-day they are purposely cut with this practical end in view. In other cases the angularity of the spire is emphasised with lucarnes beneath crocketed heads. These, too, serve to assist entasis.

It is generally conceded that in the steeple of Louth this latest phase of Gothic art reached its climax. It first of all exemplifies the ideal proportion between spire and tower. The relative height of these two features has been subjected to many variations, but the most successful results undoubtedly occur where the two are equal. If there is any considerable disparity the effect is indeed unfortunate. Hemingborough, Yorkshire, is perhaps one of the worst. In this case the spire is not only gaunt and ugly in itself but its height is so excessive that the eye is markedly offended. In other cases as at Exton, Rutland, the tower is lofty and the spire too stumpy. But at Louth the tower and spire are each 147 ft. high and the effect is most satisfactory.

CHAPTER XI

SOME LOCAL EXPRESSIONS OF PARISH CHURCH ARCHITECTURE

IT is a matter of common observation that building material affects architectural design. Thi shas already been demonstrated in the case of the East Anglian churches with their characteristic flushwork ; and in the use of timber in the wooded counties of Hampshire, Sussex, and Essex ; and of granite in the South-West. Where there is fine building material one may expect a fine church. But such material can exert its influence beyond its immediate neighbourhood. If stone can be conveyed, a rich quarry may be a point from which a wide distribution is radiated. In olden days water carriage was the cheapest and easiest. Stone could then be taken anywhere along the seaboard if a quarry was near to the coast, as, for example, the famous Purbeck marble, and thence inland where rivers were navigable for barges.

The finest building stone is the oolite limestone which is found in a geological belt running diagonally across England between Yorkshire and Somersetshire, and in that belt we find some of the grandest churches in the country. The stone is sufficiently hard to withstand the weather, yet not so hard that it cannot be carved. The granite of Cornwall and west Devon is too hard, and so is not used outside its local area. Sandstone, on the other hand, is too soft. It weathers badly, melting under the stress of alternating conditions. In Kent there occurs the well-known Kentish rag which is an old estuarial mud impregnated with calcium.

This is an inferior building material useful only for walls. Freestone had, therefore, to be imported for quoins and facings so that these churches exhibit a local character. In the north of England the building stone of the Lake District is poor in quality and slaty in texture. Here, therefore, architecture tends to be coarse.

Apart from the general impact which a church makes by reason of its building material, there are to be found definite areas or zones in which the architectural development is peculiar. Particularly was this the case in the later Gothic period, from the time of the Black Death to the Confiscation of the Chantry Endowments, and despite the regularity of the Perpendicular style, there occur striking variants which enable us to map England into certain well defined architectural provinces.

Of these, the most pronounced is the south-west zone, which comprises the whole of Cornwall and Devon, and that portion of Somerset which geographically belongs to Devon. In this area as many as 215 churches exhibit a uniformity of style not met with elsewhere. This, perhaps, is to be expected when we consider the isolated position of this part of the country, and also take into account the fact that almost the only available building stone is granite. It might, indeed, be termed the granite zone, so emphatic has been the architectural expression of this material. Even in the east and south-east of Devon where red sand-stone is found and a freer expression permitted, the influence of the granite is felt.

In plan these churches are extraordinarily uniform. Out of the total of 215, 126 consist of chancel, nave, north and south aisles, north and (or) south porches, with west tower. In a great number of cases the planning is characterised by the extension of the aisles along the chancel, sometimes leaving only one bay, at the east end, sometimes

continuing the whole length of the chancel, so that the church is converted into a perfect parallelogram save for the tower and porches. The irregularity of plan occasioned by the addition of chapels is not so common in this type as in other parts of England. In fact, in this zone there are more Perpendicular churches planned and built from the ground which have remained almost untouched than may be found in any other area.

The general conception of these churches is clearly influenced by the intractibility of the granite. Delicate workmanship is out of the question, not only on account of the difficulty in carving the stone, but also because the felspar with which it is studded weathers badly so that outlines become blurred, angles are fretted away, and figures are reduced to shapeless masses. Severity is therefore the keynote, and mass has been called upon to take the place of enrichment. Thus there was revived the ancient love of the great monolith ; and the obvious sacrifice of labour in the hewing and transporting of immense blocks of granite has given to the smallest churches of this part a peculiar dignity.

These churches are further characterised by the absence of the clerestory, which forms so dominant a feature in the churches of the Perpendicular period in others parts of England. Thus in Cornwall there are only two clerestoried parish churches, namely, Callington and Fowey ; and in Devonshire only six. It will be observed, too, that the typical church consists of three parallel divisions covered with a high pitched roof, and with gabled ends of equal height, thus making a very noteworthy elevation ; while there is no demarcation between nave and chancel (Plate XL and Fig. 53).

The interiors of the churches of this zone are so uniform that to see one is almost tantamount to seeing all, The wagon roof is, perhaps, a dominant feature ; and a second,

the absence of chancel arch, nave and chancel roof being continuous. There is not a single instance in Cornwall of a xvth century parish church having a chancel arch, and there are only 23 in Devon.

Another area exhibiting very definite localism is East Anglia, that is, the counties of Norfolk and Suffolk, and the northern portion of Essex. This zone ranks first in importance both by reason of the splendour of its churches and their number, but I place it second because the uniformity

[T. Raffles Davison, *del.*

FIG. 53.
ST. JUST, CORNWALL.

of architectural conception is not quite so strongly marked as in south-west England.

The general effect of these churches (Plate V), is produced largely by the use of flint decoration in the form known as flushwork, which arose from the lack of freestone for general building purposes. The variety and detail of these flushwork designs are too numerous to mention, but they are nevertheless systematised in their application. Probably this method

of decoration was more in use for buttresses and base moulds than for any other part of the church fabric. The outer faces of buttresses were one of the first features to be ornamented, and even where all the rest of the work is rough we find that these are neatly worked into a form of panelling. Plinths are also characteristically treated, so, too, are tower parapets, a broad string course below the battlements being a conspicuous feature. Often the battlements themselves are worked with typical Perpendicular arcading. Porches, again, are lavishly enriched even when no other part of the fabric is considered worthy of the treatment, while clerestories form a further field, the spaces between the windows being frequently panelled.

Almost every church in this zone possesses a clerestory and the chancel is often so provided as well as the nave. The clerestory windows are the usual three-light openings under depressed arches, and are set so closely together that they form an almost continuous sequence. The aisle windows are characterised by their immense size. They are extremely lofty, rising to a few feet of the parapet above, and standing almost on the ground course below. They are wide, often filling completely the spaces between the buttresses. The mullions are carried from the sill-stone to the arch in strong vertical lines sometimes enclosing decorated tracery. Window patterns tend to become stereotyped, and one building may exhibit a uniform design throughout, this even extending to the great west window, as at Terrington (St. Clement's).

These large windows naturally give the buttresses great structural importance, and this emphasis doubtless led to the practice already alluded to of enriching them with flushwork. Pinnacled buttresses are rare, the top stage usually terminating immediately below the parapet of the roof.

In plan these East Anglian churches are characterised by

great length of nave. The majority consist of at least five bays. But many have six and seven bays, some eight, and one, St. Mary's, Bury St. Edmunds, is actually ten bays long. When to the great length of the nave is added the chancel, itself of two or three bays, the dimensions of these churches becomes very remarkable. This feature together with the immense size of the aisle windows, the lofty clerestory, the commanding tower arch and the hammer-beam roof, often adorned with figures of angels, convey a general sense of splendour.

The County of Somerset has long been famous for its church towers, and these constitute a third zone (Plate XXXVII). They form, indeed, so distinctive a feature of its architecture that the expression "Somerset Tower," has become as familiar as the phrase "Perpendicular Gothic." And in so far as the majority of towers in England of the type known as "Somerset" are in that shire, the adjective is a correct one. But it is a misleading name in that many people conclude that the type is restricted to the one county. For county borders are political divisions, and architectural peculiarities are not confined within such arbitrary borders. It is also misleading if the impression is gained that the majority of the towers of Somersetshire are of this peculiar type. A large number of church towers in Somersetshire, are Devonian in character. Particularly is this the case in the churches of Exmoor which geographically belongs more to Devonshire than to Somersetshire.

Francis Bond notes that the Somerset Tower is met with along the north coast of the Bristol channel, but no other writer appears to have traced these towers beyond the borders of Somersetshire itself. Yet there are at least 14 in Gloucestershire, 4 in Wiltshire, 1 in Dorsetshire, and 2 in Devon.

In the south of England we find a "timber" zone. Not that it consists of wooden buildings, for churches entirely constructed of timber are rare: it is a zone of timber belfries,

spires, and porches. It covers the counties of Sussex, Surrey, and South Essex, and invades Kent, Hampshire, and Middlesex, that is to say, it embraces an area where building stone is scarce and where the parishioners were comparatively poor.

It is not possible to define this zone very precisely because timber is a perishable building material and is often replaced. In Cracklow's *Surrey Churches* published in 1827, for example, there are a large number of churches pictured having shingled spires and turrets which do not stand to-day. Parishes which have prospered have naturally wished to make their churches worthy of the districts they served. The counties of Surrey and Sussex, in particular, have greatly increased in wealth in recent decades. They have become residential, and where this has happened, the old timber has often been replaced by stone.

The finest examples of timber work are found in Essex (Plate XXXVI). Surrey and Sussex rank next, there being some eighty churches in these two counties with timber belfries and spires. Kent possesses one church, Wingham, which has timber arcading. Selmeston in Sussex also has timber arcades ; and in Hampshire, at Mattingley, there is a little church built almost entirely of wood. In Cheshire, of course, everyone is familiar with the black and white work of Nether Peover, Warburton, Marton, and Siddington, though these last three were not parish churches but chapels of ease. The wooden churches, however, of Cheshire, Shropshire, and Worcestershire. are too few to constitute a zone.

Lastly we may consider the stone spire zone. Stone spires are met with sporadically in every district of England, but they are found in a decided and intensive grouping in the Eastern Midlands where they follow the geographical distribution of a suitable building material. In shape the zone resembles a horseshoe. The curve starts in the north

of Derbyshire, passes through Nottinghamshire, and that part of Lincoln known as Kesteven, then comes southward through Northamptonshire, Huntingdonshire, and the west of Cambridgeshire, curving inwards again to terminate in Bedfordshire. A slight gap occurs at the south end of Lincolnshire, and one is tempted to suggest that the break demarcates a change in style, and divides the zone into two parts : the northern containing a Lincolnshire type of spire, and a southerly, a Northamptonshire type. This, however, cannot be demonstrated with such geographical precision, for styles merge the one into the other. Nevertheless, in some cases there may be found little groups where it is obvious that spires have been built from a common design. This is quite noticeable, for instance, in Derbyshire.

It must not be supposed that these few zones constitute the total of architectural localisms, but they are the largest. Many other areas exhibit distinctive characteristics. In the Craven district of Yorkshire a very definite type of church developed in the Perpendicular style. We may notice also the needle-spire of Hertfordshire, the peculiar fonts of East Anglia, and the towers of Gloucestershire and of South Lancashire. In the earlier Gothic period, there were distinctive developments in pillars and capitals. In the north arose a school of architecture free from the influence of the Continent. In the west the ideal pier was one of particular stability ; in the south marble shafting was preferred to freestone pillars. The study of these and many other differences cannot be dealt with in a pocket volume.

CHAPTER XII

WHERE THE BEST EXAMPLES OF CHURCH ARCHITECTURE MAY BE FOUND

IN some parts of England the churches are small and poor; in others they are large and magnificent. It, therefore, should be of practical service to indicate where the finest and most interesting examples may be found. Such a list will naturally have certain disadvantages. There will be "sins of omission" and many a church excluded which, in the view of other people, should have been given an honoured place. It may be truly said, of course, that no old church is without an interest and beauty of its own, but there must be some limitation if a list is to be practicable at all. The churches mentioned, therefore, are selected on account of their architecture rather than for their antiquarian interest, and the fabric only is considered, not the furnishings. The system of county grouping in alphabetical order is chosen as the most convenient for reference, while the bracketed notes, N. (Norman); E.E. (Early English); D. (Decorated) and P. (Perpendicular), indicate the main characteristics of each building. In places where there is more than one old church in the same township, the dedication is given so as to avoid confusion.

It should be clearly understood that this list includes only those churches in which the greater part of the fabric was built between the Conquest and the Confiscation of the Chantry Endowments, i.e., from 1066-1435. The Transitional period is not referred to, it being more convenient in

such reference to group the churches under Norman and Early English.

Bedfordshire.

Dunstable Priory (N.); Eaton Bray (E.E.); Elstow (P.); Felmersham (E.E., and P.); Leighton Buzzard (E.E. and P.); Luton, St. Mary's (D. and P.); Marston Moretaine (P.).

Berkshire.

Ashbury (D. and P.); Avington (N.); East Hagbourne (E.E., D. and P.); Shottesbrooke (D.); Uffington (E.E.); Wantage (D.); Windsor, St. George's Chapel (P.).

Buckinghamshire.

Hillesden (P.); Maids Moreton (P.); Milton Keynes (D.); North Marston (P.); Olney (D.); Stewkley (N.).

Cambridgeshire.

Bottisham (D.); Burwell (P.); Cambridge Great St. Mary's (P.); and King's College Chapel (P.); Cherry Hinton (E.E. and P.); Ely Cathedral (N., E.E. and D.); Harlton (D.); Haslingfield (D.); Leverington (E.E., D. and P.); Sutton (D. and P.); Soham (E.E., D. and P.); Thorney Abbey (N. and P.); Trumpington (D.); Willingham (D.).

Cheshire.

Astbury (D. and P.); Bunbury (D. and P.); Chester, The Cathedral (N., E.E., D. and P.), and St. John's (N.); Gawsworth (P.); Lower Bebington (N. and P.); Malpas (D. and P.); Nantwich (D.).

Cornwall.

Altarnun (P.) ; Bodmin (P.) ; Egloshayle (P.) ; Fowey (P.) ; Kilkhampton (P.) ; Lanlivery (P.) ; Launceston (P.) ; St. Austell, Holy Trinity (P.) ; St. Columb Major (D. and P.) ; St. Constantine (P.) ; St. German's (N., D. and P.) ; St. Ives (P.) ; St. Keverne (P.) ; St. Kew (P.) ; St. Neot (P.) ; St. Probus (P.) ; Stratton (P.) ; Truro, The Cathedral (Modern).

Cumberland.

Of mountainous character and impoverished by the Scottish raiders, this county did little building, so that the churches, though interesting, do not possess much architectural beauty. Four stand out in addition to Carlis'e Cathedral (N., E.E., D. and P.). They are :

Dacre (E.E. and P.) ; Edenhall (N., D. and P.) ; Greystoke (P.) ; and Lanercost Priory (D. and E.E.). Holme Cultrane (N. to E.E.)

Derbyshire.

Ashbourne (E.E., D. and P.) ; Chesterfield (P.) ; Eckington (N. and P.) ; Hartington (D. and P.) ; Hathersage (D. and P.) ; Melbourne (N.) ; Norbury (D. and P.) ; Sandiacre (N., D. and P.) ; Tideswell (D. and P.) ; Wirksworth (E.E., D. and P.) ; Youlgrave (N., E.E., D. and P.).

Devonshire.

There are a very large number of old churches in Devonshire. They belong for the most part to the Perpendicular period and are extraordinarily uniform in character. They resemble the Cornish type, and like the churches of that county they are famous for their elaborate wood furnishing, particularly the screen work. But this volume deals only

with the main fabric of the buildings, and from this point of view the following churches are the best examples :

Chittlehampton (P.) ; Crediton (N. and P.) ; Cullompton (P.) ; Exeter Cathedral (N., E.E. and D.) ; Harberton (P.) ; Ottery St. Mary (D.) ; Plymouth, St. Andrews (P.) ; Plympton, St. Mary's (D. and P.) ; Plymstock (P.) ; Stoke-by-Hartland (P.) ; Swimbridge (P.) ; Tiverton (P.).

Dorsetshire.

Beaminster (E.E. and P.) ; Bere-Regis (P.) ; Bradford Abbas (P.) ; Bridport (E.E. and P.) ; Cattistock (E.E. and P.) ; Cranborne (N., E.E. and P.) ; Iwerne Minster (N., E.E. and P.) ; Milton Abbey (D. and P.) ; Piddletrenthide (N. and E.E.) ; Sherborne Abbey (N. and P.) ; Studland (N.) ; Wimborne Abbey (N., E.E. and P.) ; Worth Matravers (N., E.E. and D.) ; Wyke Regis (P.).

Durham.

This county is particularly celebrated for its ancient churches of which the Early English examples are generally admitted to be unique :

Darlington, St. Cuthbert's (T. and E.E.) ; Durham Cathedral (N., E.E. and D.) ; Easington (E.E.) ; Escombe (Saxon) ; Hartlepool (T. and E.E.) ; Lanchester (N., E.E. and P.) ; Ryton (E.E.) ; Sedgefield (E.E., D. and P.) ; Southchurch, or St. Andrew Auckland (E.E. and P.) ; Staindrop (N., E.E. and P.).

Essex.

Burnham (P.) ; Dedham (P.) ; Chelmsford, St. Mary's (P.), now used as the cathedral church ; Great Bromley

(P.) ; Rainham (P.) ; Saffron Walden (P.) ; Thaxted (D. and P.) ; Waltham Abbey (N.).

Gloucestershire.

The churches in Gloucestershire are exceptionally fine, and those in the subjoined list are amongst the most noble examples in England :

Berkeley (E.E. and D.) ; Bishop's Cleeve (N., E.E. and D.) ; Bristol, The Cathedral church of Holy Trinity (N., E.E., D. and P.) ; Cirencester (E.E., D. and P.) ; Chipping Camden (P.) ; Fairford (P.) ; Northleach (P.) ; Tewkesbury Abbey (N., E.E. and D.) ; Westbury-on-Trym (E.E. and P.) ; Winchcombe (P.) ; Gloucester Cathedral (N., E.E., D. and P.).

Hampshire.

Christchurch Priory (N., E.E., D. and P.) ; Crondall (N.) ; Hayling (E.E.) ; Kingsclere (N.) ; Milford-on-Sea (E.E. and D.) ; Porchester Priory (N.) ; Romsey (N. and E.E.) ; Titchfield (E.E., D. and P.) ; Winchester Cathedral (N., E.E., D. and P.).

Herefordshire.

Abbey Dore (T. and E.E.) ; Bromyard (N. and E.E.) ; Canon Pyon (D.) ; Hereford Cathedral (N., E.E., D. and P.) ; Kington (N. and D.) ; Kilpeck (N.) ; Ledbury (N., E.E. and D.) ; Leominster (N., E.E., D. and P.) ; Madley (N., E.E. and D.) ; Weobley (N., E.E. and D.).

Hertfordshire.

Broxbourne (P.) ; Berkhampstead (EE. and D.) ; Hemel Hampstead (N., E.E. and D.) ; Hitchin (P.) ; Sawbridgeworth (D. and P.) ; St. Albans Cathedral (N., E.E. and D.).

Huntingdonshire.

Buckden (P.) ; Connington (P.) ; Ramsey (N. and E.E.); St. Ives (P.) ; St. Neot's (P.).

Kent.

There are a large number of good churches in Kent, but few are definitely outstanding. It is, therefore, very difficult to make a list of the finest examples. The following, however, are amongst the best :

Ashford (P.) ; Barfreston (N.) ; Canterbury Cathedral (N., E.E., D. and P.) ; Cranbrook (P.) ; Eastry (E.E.) ; Hawkhurst (D. and P.) ; Hythe (E.E. and P.) ; Herne (D. and P.) ; Ivychurch (D. and P.) ; Lydd (P.) ; Maidstone, All Saints (P.) ; Meopham (D.) ; Minster, Thanet (N. and E.E.) ; New Romney (N. and D.) ; Rochester Cathedral (N., E.E., D. and P.) ; St. Margaret-at-Cliffe (N.) ; Woodchurch (E.E. and P.).

Lancashire.

Cartmel (N., E.E., D. and P.) ; Halsall (D.); Lancaster, St. Mary's (P.) ; Manchester (P.) ; Sefton (D. and P.) ; Whalley (E.E., D. and P.)

Leicestershire.

Appleby Magna (D.) ; Bottesford (P.) ; Buckminster (D. and P.) ; Claybrooke (D.) ; Croxton Kyrial (D. and P.) ; Gaddesby (E.E. and D.) ; Kegworth (D.) ; Leicester, St. Mary's (N., E.E. and P.) ; and St. Margaret's (E.E., D. and P.) ; Loughborough (D. and P.) ; Melton Mowbray (E.E., D. and P.) ; Stoke Golding (D.) ; Waltham-on-the-Wolds (E.E., D. and P.) ; Wymondham (E.E., D. and P.).

Lincolnshire.

This county contains a wealth of glorious churches of which the following are outstanding examples :

Boston (D.) ; Bottesford (E.E., D. and P.) ; Clee (N. and E.E.) ; Caythorpe (D.) ; Deeping, St. James' (N., E.E., D. and P.) ; Ewerby (D.) ; Frampton, (E.E. and P.) ; Grantham (E.E. and D.) ; Grimoldby (D. and P.) ; Kirkstead, St. Leonard's Chapel (E.E.) ; Heckington (D.) ; Halbreach (D) ; Lincoln Cathedral (EE. and D.P.) ; Long Sutton (E.E., D. and P.) ; Louth (P.) ; Marsh Chapel (P.) ; Stow (N., E.E., D. and P.) ; Silk Willoughby (D.) ; Sedgebrook (E.E. and P.) ; Spalding (E.E., P. and D.) ; Theddlethorpe, All Saints (P.) ; Winthorpe (P.) ; Welbourne (D. and P.) ; Whaplode (N., E.E. and P.) ; Weston (E.E., D. and P.) ; .

London.

Westminster Abbey (E.E., D., P. and Renaissance) ; St. Paul's (Renaissance) ; Southwark Cathedral (E.E., D. and P.) ; St. Bartholomew's, Smithfield (N. and P.).

Monmouthshire.

The unsettled history of this county due to its exposure to raids from Wales had made it rich in military architecture, and correspondingly poor in ecclesiastical buildings. It contains no parish churches of the first rank, but the following are amongst the most notable :

Christchurch (E.E. and P.) ; Grosmont (E.E.) ; Newport, St. Woollos' (N., E.E., D. and P.) ; Peterstone (P.) ; Skenfrith (E.E. and P.) ; Trelleck (D.).

Middlesex.

Harrow (E.E. and P.).

Norfolk.

In East Anglia there are more ancient churches than in any other part of England. They total over 1,200, of which there are nearly 60 in the City of Norwich alone. A great number of these Norfolk churches may be placed in the first rank, and hundreds are of the most intense interest. The following list is therefore curtailed to the very finest examples :

Attleborough (N. and P.) ; Aylsham (D. and P.) ; Blakeney (E.E., D. and P.) ; Cawston (P.) ; Cley-next-the-Sea (D. and P.) ; Creake, North (D. and P.) ; Cromer (P.) ; Castle Rising (N. and E.E.) ; Dersingham (D. and P.) ; Diss (P.) ; Dereham, East (N., E.E. and P.) ; Fakenham (D. and P.) ; Happisburgh (P.) ; Hingham (D. and P.) ; Hunstanton (D.) ; Lopham, South (N. and P.) ; Lynn, St. Margaret's (N., D. and P.) ; Mattishall (P.) ; Norwich, The Cathedral (N., E.E., D. and P.) ; and St. Peter Mancroft (P.) ; Ringland (P.) ; Ranworth (P.) ; Sall (P.) ; Salthouse (P.) ; Scarning (P.) ; Snettisham (D.) ; Swaffham (P.) ; Swanton Morley (D. and P.) ; Terrington, St. Clement's (P.) ; Tilney, All Saints (N. and P.) ; Walpole, St. Peter's (P.) ; Walsoken (N., E.E., D. and P.) ; Walton, West (E.E.) ; Wiggenhall, St. Mary (D. and P.) ; and St. Mary Magdalene (D. and P.) ; Worstead (P.) ; Wighton (P.) ; Wymondham (N. and P.) ; Yarmouth, St. Nicholas' (P.).

Northamptonshire.

This county contains many of the finest churches in England of which the following are outstanding :

Burton Latimer (N., E.E., D. and P.) ; Castor (N., E.E. and D.) ; Crick (D. and P.) ; Earl's Barton (Saxon, E.E., D. and P.) ; Fotheringay (P.) ; Finedon (D.) ; Higham Ferrers (E.E., D. and P.) ; Irthlingborough (D. and P.) ;

Kettering (D. and P.); Northampton, St. Peter's (N.), and St. Sepulchre's (N.); Peterborough Cathedral (N), E.E., D. and P.); Raunds (E.E., D. and P.); Rushden (E.E., D. and P.); Stanwick (E.E., D. and P.); Stanford (D.); Stamford Baron (P.); Spratton (N., E.E., D. and P.); Woodford (E.E., D. and P.).

Northumberland.

As in the case of Cumberland, Northumberland suffered from the Scottish raiders and is, therefore, more distinguished for its military than its ecclesiastical architecture. The following are the best examples of church building:

Alnwick (P.); Bamburgh (N. and E.E.); Brinkburn (T. and E.E.); Corbridge (Saxon and E.E.); Hexham (Saxon, N. and E.E.); Morpeth (D.); Newcastle, St. Nicholas' (P.), now a cathedral church; Norham (N. and D.); Warkworth (N., E.E. and P.).

Nottinghamshire.

Blyth (N., D. and P.); Hawton (E.E. and P.); Newark (E.E., D. and P.); Nottingham, St. Mary's (P.); Southwell Minster (N., E.E., D. and P.), now a cathedral; Worksop (N. and E.E.).

Oxfordshire.

Adderbury (D. and P.); Bampton (N., E.E., D. and P.); Bloxham (D. and P.); Burford (N., E.E. and P.); Chipping Norton (D. and P.); Chinnor (D.); Dorchester Abbey (E.E. and D.); Ewelme (P.); Great Milton (E.E., D. and P.); Iffley (N. and E.E.); Oxford, The Cathedral (N., E.E., D. and P.); St. Peters-in-the-East (N., E.E. and D.), and St. Mary's (E.E. and P.); Thame (D. and P.); Witney (E.E., D. and P.).

Rutland.

Ketton (E.E.); Oakham (D. and P.).

Shropshire.

Acton Burnell (E.E.); Chelmarsh (D.); Ludlow (D. and P.); Tong (P.); Shifnal (E.E., D. and P.); Shrewsbury Abbey (N., E.E., D. and P.); and St. Mary's (N., E.E., D., and P.).

Somersetshire.

This county is noted for the magnificence of its church towers of which the finest examples belong to the Perpendicular period. In many cases the body of the church is insignificant in comparison, but those in the subjoined list are chosen for their general architectural beauty:

Bath Abbey (P.); Bruton (P.); Crewkerne (P.); Chewton Mendip (P.); Dunster (E.E., D. and P.); Evercreech (P.); Glastonbury, St. John's (P.); Huish Episcopi (P.); Ilminster (P.); Petherton, North (P.); St. Mary Redcliffe, Bristol (E.E., D. and P.); Shepton Mallet (P.); Staple Fitzpaine (P.); Taunton, St. Mary's (P.); Weston Zoyland (D. and P.); Wells, The Cathedral (E.E. and D.); St. Cuthbert's (E.E. and P.); Winscombe (P.); Wrington (P.); Yeovil (P.).

Staffordshire.

Checkley (N., E.E., D. and P.); Clifton Campville (E.E. and D.); Coppenhall (E.E.); Gnosall (N., E.E., D. and P.); Lichfield Cathedral (E.E., and D.); Penkridge (E.E. and P.); Stafford St. Chad's (N.), St. Mary's; Tamworth (D. and P.); Tettenhall (N., E.E., D. and P.); Tutbury Priory (N.); Wolverhampton, St. Peter's (P.).

Suffolk.

Bacton (P.); Bardwell (D. and P.); Barton, Great (E.E. and P.); Barking (D. and P.); Beccles (P.); Bergholt, East (P.); Brandon (P.); Bildeston (D. and P.); Blythborough (P.); Bury St. Edmund's, St. James' (D. and P.), now the Cathedral Church, and St. Mary's (P.); Capel St. Mary (P.); Cavendish (P.); Clare (P.); Dennington (D. and P.); Denston (P.); Eye (P.); Framlingham (D. and P.); Hadleigh (D. and P.); Haverhill (P.); Hitcham (D. and P.); Hessett (D. and P.); Ixworth (P.); Ipswich, St. Margaret's (D. and P.); Lavenham (P.); Long Melford (P.); Lowestoft, St. Margaret's (P.); Mildenhall (E.E., D. and P.); Redgrave (D. and P.); Stoke-by-Nayland (P.); Stoke-by-Clare (D. and P.); Stowlangtoft (D. and P.); Sudbury, St. Peter's (P.), and All Saints (P.); Stradbrooke (D. and P.); Southwold (P.); Westhall (N., D. and P.); Woodbridge (P.); Woolpit (D. and P.); Walsham-le-Willows (P.).

Surrey.

This county is very poor in ecclesiastical architecture and none of its churches belong to the first rank. Two, however, may be mentioned:

Cranleigh (D.); and Lingfield (P.). There is also the Cathedral Church at Southwark (E.E., D. and P.).

Sussex.

Boxgrove Priory (N., E.E., D. and P.); Chichester Cathedral (N., E.E., and D.); New Shoreham (N., T. and E.E.); Old Shoreham (N., and E.E.); Rye (N., E.E., D. and P.); Winchelsea (D.).

Warwickshire.

Astley (D.); Brailes (D.); Coventry, St. Michael's

(P.); and Holy Trinity (P.); Knowle (P.); Lapworth (E.E. and P.); Solihull (D. and P.); Stratford-on-Avon (E.E. and P.); Warwick, St. Mary's, the Beauchamp Chapel (P.).

Westmorland.

Appleby, St. Lawrence (E.E. and P.); Barton (N.); Kendal (E.E. and P.)

Wiltshire.

The churches of this county are particularly spacious and handsome. The following are generally admitted to be the most notable:

Amesbury (N., E.E. and D.); Bedwyn, Great (N., E.E. and D.); Bishop's Cannings (N., E.E. and P.); Bradford-on on-Avon, St. Lawrence (Saxon); Cricklade, St. Sampson's (E.E., D. and P.); Devizes, St. John's (N., E.E. and P.), and St. Mary's (N., E.E., D. and P.); Downton (N., E.E., D. and P.); Edington (D. and P.); Potterne (E.E.); Salisbury Cathedral (E.E. and D.); Trowbridge (P.).

Worcestershire.

Bromsgrove (N., E.E., D. and P.); Bredon (N., E.E., D. and P.); Evesham, Abbey Tower (P.), and All Saints (D. and P.); Great Malvern Priory (N. and P.); Pershore Abbey (E.E.); Powick (E.E., D. and P.); Stoke Prior (N., E.E., D. and P.); Worcester Cathedral (E.E., D. and P.).

Yorkshire, North Riding.

Ainderby Steeple (E.E., D. and P.); Burneston (P.); Kelton, South (E.E.); Kirkby Wiske (D. and P.); Old

Malton Priory (N., E.E. and P.); Patrick Brompton (E.E. and D.); Salton (N.); Thirsk (P.); Wensley.

Yorkshire, West Riding.

Adel (N.); Adlingfleet (E.E. and P.); Birkin (N. and D.); Hatfield (N., E.E., D. and P.); Halifax (D. and P.); Knaresborough (D. and P.); Nun Monkton (E.E.); Ripon Cathedral (N., E.E., D. and P.); Rotherham, All Saints (P.); Selby Abbey (N., E.E. and D.); Tickhill (P.); Wakefield, St. Nicholas' (P.); and the Cathedral (P.); Harewood. (P.).

Yorkshire, East Riding.

The churches in this Riding are particularly magnificent. Beverley Minster (E.E., D. and P.); Beverley St. Mary's (D. and P.); Bridlington Priory (E.E., D. and P.); Bainton (D.); Cottingham (D. and P.); Filey (N., E.E. and D.); Great Driffield (E.E., D. and P.); Howden (D.); Hedon (T., E.E., D. and P.); Hull, Holy Trinity (D. and P.); Kirkburn (N., E.E. and D.); North Newbald (N. and P.); Patrington (D. and P.); Skirlaugh (P.); York Cathedral (E.E., D. and P.).

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